UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, and NATURAL RESOURCES DEFENSE COUNCIL, INC. AND SIERRA CLUB, Intervenor-Plaintiffs, v. DTE ENERGY COMPANY AND DETROIT EDISON COMPANY, Defendants.	Civil Action No. 2:10-cv-13101-BAF-RSW Judge Bernard A. Friedman Magistrate Judge R. Steven Whalen

DEFENDANTS' MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS

Pursuant to Fed. R. Civ. P. 56, Defendants DTE Energy Company and Detroit Edison Company, by counsel, hereby move for summary judgment. For the reasons set forth in the accompanying memorandum of law, Defendants are entitled to judgment as a matter of law as to each of EPA's claims in this action.

In accordance with Local Rule 7.1(a)(2), counsel for Defendants conferred with counsel for EPA, and explained the nature of this motion and its legal basis. EPA did not concur in the relief sought.

Respectfully submitted this 22nd day of May 2013.

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CERTIFICATE OF SERVICE

I hereby certify that on May 22, 2013, the foregoing **DEFENDANTS' MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS** was served electronically only on the following attorneys of record in accordance with an agreement reached among the parties:

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UNITED STATES DISTRICT COURT
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UNITED STATES OF AMERICA,

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and

NATURAL RESOURCES DEFENSE COUNCIL, INC. AND SIERRA CLUB,

Intervenor-Plaintiffs,

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DTE ENERGY COMPANY AND DETROIT EDISON COMPANY,

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Civil Action No.
2:10-cv-13101-BAF-RSW

Judge Bernard A. Friedman

Magistrate Judge R. Steven Whalen

DEFENDANTS' BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS

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STATEMENT OF ISSUE PRESENTED

1. In its March 28, 2013, decision, the Sixth Circuit concluded that the legal premises underlying this Court's decision to grant DTE's motion for summary judgment were "largely correct." The Government is not allowed to second-guess an operator's projection to prove that the operator's projection was faulty, much less to prove that an unpermitted "major modification" has occurred. But the Sixth Circuit remanded the case to allow the Court to consider whether DTE complied with the objective requirements governing preconstruction projections under the 2002 NSR Reform Rules.

Is DTE entitled to judgment as a matter of law where the undisputed facts establish that DTE has complied with the objective requirements of EPA's regulations governing preconstruction projections and the Government has never contended otherwise?

Defendants' Answer: Yes.

CONTROLLING OR OTHER APPROPRIATE AUTHORITY

Preamble to EPA's 1992 NSR Rules Amendments

57 Fed. Reg. 32,314 (July 21, 1992)

Preamble to EPA's 2002 NSR Rules Amendments

67 Fed. Reg. 80,186 (Dec. 31, 2002)

Relevant Federal Regulations

40 C.F.R. § 52.21(a)(2)(iii)
40 C.F.R. § 52.21(a)(2)(iv)
40 C.F.R. § 52.21(b)(2)(iii)
40 C.F.R. § 52.21(b)(20)
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40 C.F.R. § 52.21(r)(6)(vi)

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

CAA	Clean Air Act
CEMS	Continuous Emissions Monitoring System
EPA	United States Environmental Protection Agency
MDEQ	Michigan Department of Environmental Quality
MPSC	Michigan Public Service Commission
NNSR	Nonattainment New Source Review
NOx	Nitrogen Oxide
NSR	New Source Review
PM	Particulate Matter
PSCR	Power Supply Cost Recovery
PSD	Prevention of Significant Deterioration
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown and Malfunction

PRELIMINARY STATEMENT

Two years ago, Defendants DTE Energy Company and Detroit Edison Company (now called DTE Electric Company) (collectively, DTE) asked the Court to enter summary judgment in favor of DTE in this enforcement case under the Clean Air Act's (CAA) New Source Review (NSR) program. Under the U.S. Environmental Protection Agency's (EPA's or Agency's) 2002 NSR Reform Rules and consistent with the statutory objective of NSR, construction projects are not "major modifications" unless they cause an increase in emissions. DTE had concluded before construction that the 2010 routine repair and replacement projects at DTE's Monroe Unit 2 power plant would not cause an increase in emissions, and actual post-project data then available confirmed as much. The Government could only prove its case by second-guessing DTE's preconstruction emissions projection, and this, DTE argued, was not allowed. The Court agreed and granted DTE's motion. *See* Op. & Order Granting Defs.' Mot. for Summ. J. (Summary Judgment Order), Aug. 23, 2011, ECF No. 160.

On appeal, the Sixth Circuit endorsed the central premises of this Court's decision, explaining that "the district court's premises are largely correct." *United States v. DTE Energy Co.*, No. 11-2328 (Sixth Cir. Op.), slip op. at 9 (6th Cir. Mar. 28, 2013). The 2002 NSR Reform Rules create a "project-and-report" system for determining NSR applicability. *Id.* at 10. Those rules do not allow the Government to second-guess the operator's determination, because that would create, in effect, a "prior approval" system. *Id.* Instead, the operator's judgment will be judged by whether emissions at the unit increase after the project. *Id.* at 12. And the source can manage its emissions to ensure that they do not increase. *Id.*

But the Sixth Circuit panel majority concluded that this Court's decision may have gone too far in one limited respect—it seemed to preclude ***any*** challenge to the operator's preconstruction projection "before there is post-construction data to prove or disprove it." *Id.* at

2. In other words, the Sixth Circuit panel majority believed that this Court's decision, if applied to its broadest extent, would preclude not only impermissible second-guessing, but also more basic actions to ensure that the operator complied with the "specific instructions" governing preconstruction projections. *Id.* at 9. "[The Government] is not categorically prevented from challenging even blatant violations of its [projection] regulations. . . ." *Id.* at 2. So the Sixth Circuit reversed and remanded.

The narrow question remaining for this Court to answer on remand is straightforward: Did DTE comply, "at a basic level," *id.* at 10, with the regulations' "specific instructions" for conducting preconstruction projections? The answer is "yes." The Government has never contended otherwise.

LEGAL BACKGROUND

I. The 2002 NSR Reform Rules Create a Project-and-Report System, Not a Prior Approval System.

As with previous iterations of EPA's NSR regulations, the 2002 NSR Reform Rules[1] require operators to determine, before commencing construction, whether a construction project is projected to cause a significant increase in emissions and thus trigger CAA permitting requirements. *Id.* at 4-6. For projects like those at issue here that only involve existing emissions units, the rules require the operator to project its future emissions and compare those emissions to baseline actual emissions:

> [a] significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the **projected actual emissions** ... and the **baseline actual emissions** ... for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section).

[1] *See* 67 Fed. Reg. 80,186 (Dec. 31, 2002).

40 C.F.R. § 52.21(a)(2)(iv)(*c*) (emphases added). If projected actual emissions[2] in any one of the five years after the project exceed baseline actual emissions by greater than the significance threshold for any regulated pollutant, the operator must get a permit. And even if the calculation does not show a significant increase, the operator nonetheless may be required to comply with certain recordkeeping and reporting requirements.

These rules therefore prescribe three basic steps: (1) determine "baseline actual emissions"; (2) determine "projected actual emissions"; and (3) compare the two. Sixth Cir. Op. at 6.

A. "Baseline Actual Emissions"

"Baseline actual emissions" is defined as "the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project." 40 C.F.R. § 52.21(b)(48)(i). The regulations specifically require the operator to do four things when determining baseline actual emissions.

First, and most obviously, the operator must pick the 24-month baseline period. That consecutive 24-month period must occur within the five years immediately preceding actual construction of the project, unless the operator requests the use of another period that is deemed "more representative." *Id.* And the operator can select a different consecutive 24-month period for each regulated pollutant. *Id.* § 52.21(b)(48)(i)(*c*). The operator then calculates the average

[2] As discussed more fully below, the term "projected actual emissions" under the regulations incorporates causation by excluding emissions increases unrelated to the project at issue. *See infra* at 4-5 (discussing 40 C.F.R. § 52.21(b)(41)).

annual rate based on that 24-month period. (The math is easy—simply divide the total emissions for that period by two.)

Second, the regulations tell the operator to include both fugitive emissions, to the extent quantifiable, and emissions associated with startup, shutdown and malfunction (SSM) in calculating average emissions rate. *Id.* § 52.21(b)(48)(i)(*a*). "Fugitive emissions" are "those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening." *Id.* § 52.21(b)(20). SSM emissions are the (sometimes, for some pollutants) higher rates of emission that occur during startup, shutdown and malfunction.

Third, the operator must adjust baseline emissions downward to subtract non-compliant emissions. *Id.* § 52.21(b)(48)(i)(*b*). These are emissions "that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period." *Id.*

Finally, the regulations instruct the operator to make sure there is adequate data for the 24-month period selected. "The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year ...." *Id.* § 52.21(b)(48)(i)(*d*).

B. "Projected Actual Emissions"

"Projected actual emissions" is defined as the "maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit" a regulated PSD pollutant "in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project. . . ." *Id.* § 52.21(b)(41)(i). The regulations direct operators to do four things in making this projection.

First, the operator must project emissions for the 5 years following the project and identify the "maximum annual rate ... at which [the unit] is projected to emit a regulated NSR

pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project. . . ." *Id.*; Sixth Cir. Op. at 5.

Second, "the owner or operator ... [s]hall consider all relevant information," including the "company's own representations," its "expected business activity," and its "filings with the State or Federal regulatory authorities." 40 C.F.R. § 52.21(b)(41)(ii)(*a*). But critically, the rules do not provide an exhaustive list of relevant factors or tell the operator what weight to apply to any one of them. That is left to the operator's business and engineering judgment.

Third, as with its calculation of baseline actual emissions, the operator must include SSM emissions and fugitive emissions (to the extent quantifiable). *Id.* § 52.21(b)(41)(ii)(*b*).

Finally, reflecting the causation requirement of the statute and regulations,[3] the owner/operator "[s]hall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project" that the unit "could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions ... and that are also unrelated to the particular project, including any increased utilization due to product demand growth." *Id.* § 52.21(b)(41)(ii)(*c*).

C. Comparison of "Baseline Actual Emissions" and "Projected Actual Emissions"

After the operator has calculated baseline actual emissions and projected actual emissions, it must compare the two numbers and determine whether a "significant" increase in emissions is projected to occur. A table in the regulations defines what constitutes "significant" for each regulated pollutant. *Id.* § 52.21(b)(23). If the projects are projected to cause a

[3] 67 Fed. Reg. at 80,203 ("Both the statute and ... regulations indicate that there should be a causal link between the proposed change and any post-change increase in emissions.").

significant net emissions increase, the operator must get a permit. *See* 40 C.F.R. § 52.21(a)(2)(iii).

If the comparison shows no significant increase, but still a "reasonable possibility" that emissions could increase—as defined by § 52.21(r)(6)(vi)(*b*) or § 52.21(r)(6)(vi)(*a*)—the operator must comply with one of two sets of notification requirements. For all such projects, "[b]efore beginning actual construction ..., the owner or operator shall document and maintain a record" that contains the "projected actual emissions, the amount of emissions excluded under paragraph (b)(41)(ii)(*c*) ... and an explanation for why such amount was excluded," as well as a "description of the project" and an "[i]dentification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project." *Id.* § 52.21(r)(6)(i)(*a*)-(*c*). Additional obligations apply to projects that fall into the "reasonable possibility" category based on § 52.21(r)(6)(vi)(*a*)—i.e., projects that show an increase of greater than 50% of the significant amount even after excluding emissions increases that are unrelated to the projects. As to those projects, "before beginning actual construction, the owner or operator" must also provide its preconstruction analysis to the permitting authority. *Id.* § 52.21(r)(6)(ii). The source is not "require[d] ... to obtain any determination from the Administrator before beginning actual construction." *Id.*; *see also* Sixth Cir. Op. at 10 (explaining that the regulations do not require approval of projections). Rather, once pre-project analysis and recordkeeping requirements are met (i.e., notification is sent to the permitting authority or records are maintained, as applicable under the rules), the 2002 NSR Reform Rules provide that construction may begin in full compliance with the CAA. And after construction is complete, the operator must calculate and maintain a record of emissions in tons per year of any NSR-regulated pollutant and (for electric

generating units) report those emissions to the relevant regulatory authority annually. 40 C.F.R. § 52.21(r)(6)(iii)-(iv).

II. The 2002 NSR Reform Rules Measure the Validity of the Source's Preconstruction Projection Through Postconstruction Emissions Data.

The 2002 NSR Reform Rules make clear that the Agency may not second-guess the operator's business and engineering judgment in making a projection that emissions will not increase due to a project by clarifying that the validity of the projection will be judged by actual post-project emissions data. Consistent with the statute, which defines "modification" as a change that "increases the amount" of an emitted air pollutant, the revised rules state unequivocally that a "project is a major modification for a regulated NSR pollutant if it causes … a significant emissions increase … and a significant net emissions increase." *Id.* § 52.21(a)(2)(iv)(*a*). And in the very next sentence, the rules make clear that a project "is ***not*** a major modification ***if it does not cause a significant emissions increase***." *Id.* (emphases added). So in the absence of evidence showing an actual increase in emissions caused by the project, a source operator cannot be held liable for constructing a major modification without a permit.

The rules reinforce the primacy of postconstruction real emissions data in judging whether a major modification has occurred by clarifying that such data either confirm or trump preconstruction projections. After describing how an operator should project post-project emissions, EPA makes clear that, "[r]egardless of ***any such*** preconstruction projections, a major modification" depends on whether "the project ***causes a significant emissions increase*** …." *Id.* § 52.21(a)(2)(iv)(*b*) (emphases added). This provision applies expansively to "any such" projection, whether it is the actual projection performed by the operator or a projection intended to "second-guess" the operator's projection after the fact. This Court held as much in its summary judgment decision, and the Sixth Circuit agreed. Sixth Cir. Op. at 9 ("[T]he district

court's premises are largely correct."); *id.* at 11 ("[It] is entirely consistent with the statute and regulations" for a source "to keep its post-construction emissions down in order to avoid the significant increases that would require a permit.").

STATEMENT OF THE CASE

I. Procedural History

A. The Government's Notice of Violation and Subsequent Enforcement Action

In June 2010, the Government issued DTE a "Notice and Finding of Violation" (NOV) that accused DTE of violating the NSR regulations. Ex. 1, NOV. Specifically, the Government alleged that routine boiler tube replacement projects that DTE commenced at Monroe Unit 2 in March 2010 were "major modifications." *Id.* at 4. The Government did not allege that DTE failed to follow the specific instructions for determining NSR applicability. Rather, the Government contended that DTE should have reached a different conclusion—i.e., that the projects would cause a significant increase in emissions. The Government and DTE were unable to resolve the matter, so the Government filed this lawsuit in August 2010, shortly after Monroe Unit 2 resumed operations and well before annual data were available to show whether Monroe Unit 2 had emitted any regulated pollutant at greater-than-baseline levels, much less whether the projects had ***caused*** emissions to increase. In its Complaint, the Government asserted two essentially identical claims—that DTE violated the Prevention of Significant Deterioration (PSD) (Count One) and Nonattainment New Source Review (NNSR) (Count Two) programs by constructing a major modification at Monroe Unit 2 without a permit.

B. The Court Grants Detroit Edison's Motion for Summary Judgment.

DTE moved for summary judgment, because the Government had no evidence showing that emissions at Monroe Unit 2 increased after the 2010 projects. The Government's case instead was built on exactly the type of second-guessing that the 2002 NSR Reform Rules do not

tolerate. Specifically, the Government intended to prove its case by showing, through expert testimony, that Detroit Edison ***should have projected*** that the projects ***would cause*** an increase in emissions, regardless of DTE's projection that no increase would result from the project and regardless of whether actual post-project emissions ever increased above baseline levels (and, indeed, regardless of whether emissions actually decreased, as they did since Monroe Unit 2 returned to operation after the projects, almost three years ago).

This Court agreed with DTE that the 2002 NSR Reform Rules do not allow the type of second-guessing that was the cornerstone of the Government's liability proof. *See* Summary Judgment Order, ECF No. 160. DTE had complied with the rules' pre-construction source obligations governing notice requirements, and actual post-project emissions data did not show an actual significant increase in emissions. *Id.* at 3-6. Any contention that the 2010 projects were, in fact, major modifications was premature. *Id.* at 9. This Court also rejected the Government's belated claim that DTE's preconstruction notice to the Michigan Department of Environmental Quality (MDEQ) was deficient, both because the notice met all of the regulatory requirements and because the Government failed to allege in its NOV that DTE's notice was deficient. *Id.* at 12.

The Government appealed.

C. The Sixth Circuit Decision

1. The Sixth Circuit Endorsed Key Premises of This Court's 2011 Decision.

On appeal, the Government pursued the same enforcement theory it had pursued unsuccessfully in this Court. The Government argued that it should be able to prove that a major modification has occurred by second-guessing the operator's projection: "[The Government] can ... enforce PSD requirements by demonstrating that the operator ***should have*** projected that

emissions would increase." Br. for the United States as Appellant at 29 (emphasis in original); *see also* Reply Br. for the United States as Appellant at 5 (claiming that "the statute itself, the ... regulation, case law, and decades of NSR practice ... all ... make clear that EPA can enforce NSR based on the pollution an operator should have expected to result from construction"). The Government contended that it need not adduce evidence of an actual increase in emissions after the project to meet its burden. Br. for the United States as Appellant at 31. It would suffice, argued the Government, to show that a "projection" made after the fact in the context of an enforcement case would have shown an increase. *Id.*

The Sixth Circuit issued its decision on March 28, 2013. In that decision, the Sixth Circuit did not question the basic premises of this Court's summary judgment decision or disagree with this Court's conclusion that there can be no modification where there is no actual emissions increase due to the project. "[T]he district court's premises are largely correct," the Court observed. Sixth Cir. Op. at 9. The 2002 NSR Reform Rules "do[] not contemplate approval of the projection prior to construction." *Id.* at 10. The regulations, therefore, "allow operators to undertake projects without having EPA second-guess their projections." *Id.* at 2. Were EPA allowed to "second-guess the making of the projections, then a project-and-report scheme would be transformed into a prior approval scheme." *Id.* at 10.[4] Thus, the Sixth Circuit

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[4] The Court explored this topic at length with the Government's counsel at oral argument:

> **JUDGE ROGERS**: [You] would have to say there's some Regulation which [DTE] interpreted incorrectly in making these projections. Is that correct?
>
> **MR. BENSON**: Well, I think what the District Court would find is that one side or the other's projection was inaccurate based on the facts. It is really a factual question, and then there is a legal question.
>
> **JUDGE ROGERS**: Alright. That puzzles me entirely.
>
> * * *

(Continued . . . .)

observed, "submitting [the] ... projection one day before construction began ... is fully consistent with a project-and-report scheme." *Id.* at 11. And "keep[ing] ... post-construction emissions down in order to avoid the significant increases that would require a permit ... is entirely consistent with the statute and regulations." *Id.* Indeed, "purposely manag[ing] the cost of electricity from Monroe Unit #2 to keep its emissions from increasing....further[s] the goal of the statute." *Id.* at 13.

The Sixth Circuit also agreed with this Court on the role of post-project data—they dictate whether or not a modification has occurred, where the operator has projected no increase in emissions due to the project. "If [the] company's projections are later proven incorrect, EPA can bring an enforcement action" alleging a major modification. *Id.* at 12. This reflects the nature of the statutory and regulatory modification program: "As EPA conceded at oral argument, the statute and regulations allow sources to replace parts indefinitely without losing their grandfathered status so long as none of those changes cause an emissions increase." *Id.* at 12.

> **MR. BENSON**: I mean you have to comply with the regulations and . . . if there is a projection that complies with the regulations, there may be two different projections that both sort of on a superficial level meet the requirements of the regulations. But they would rely on different facts that would be found by the district court. ... And that is the type of analysis that EPA and the Company is going to do and in a court below the court would have to decide whose analysis makes sense.
>
> **JUDGE ROGERS**: Well here's the problem I have with that. That sounds like getting a permit to not get a permit. It sounds like you have to get approval from EPA as to your calculations before you can proceed without a permit.

Oral Arg. at 50:39, Nov. 27, 2012.

2. The Sixth Circuit Carves Out a Narrow Category of Claims to Ensure That the System Works.

But the Sixth Circuit also concluded that this Court's legal holding might have been stated too broadly in one limited respect. According to the panel majority, "This appeal raises a single question: can EPA challenge that projection before there is post-construction data to prove or disprove it?" *Id.* at 1. The panel answered this question in the affirmative: even though an operator's projections are not subject to second-guessing by EPA, "[t]he operator has to make projections according to the requirements for such projections contained in the regulations. If the operator does not do so, and proceeds to construction, it is subject to an enforcement proceeding." *Id.* at 10. Stated differently, "If there is no projection, or the projection is made in contravention of the regulations guiding how the projection is to be made, then the system is not working." *Id.* "[A]t a ***basic level*** the operator has to make a projection in compliance with how the projections are to be made." *Id.* (emphasis added).

The category of enforcement actions contemplated by the Sixth Circuit's decision is narrow. EPA is authorized to bring an enforcement action if it believes the operator has not conducted a projection at all or if the operator has not complied with the "requirements for such projections contained in the regulations." *Id.* at 15. As the Court of Appeals explained by way of example, "EPA must be able to prevent construction if an operator ... uses an improper baseline period or uses the wrong number to determine whether a projected emissions increase is significant." *Id.* at 11. But that authorization is limited by the Sixth Circuit's clear prohibition against second-guessing. For example, EPA cannot substitute its judgment for that of the operator as to the likely demand for the unit in the projected years or with respect to the weight given to each of the relevant factors the operator must consider. The object of such an action, rather, is to ensure "at a basic level" that "the operator has ... [made] a projection in compliance

with how the projections are to be made." *Id.* at 10. But critically, "this does not mean that the agency gets ***in effect*** to require prior approval of the projections." *Id.* (emphasis added).

II. Statement of Undisputed Material Facts

From March to June 2010, Detroit Edison removed Monroe Unit 2 from service to perform a number of routine maintenance projects, including the replacement of three boiler tube components—the economizer, the pendant reheater, and a portion of the waterwall.[5] Ex. 2, Declaration of Skiles W. Boyd (Boyd Decl.) ¶ 17.

Before commencing construction, DTE followed the NSR regulations' specific instructions for determining whether the projects would trigger CAA permitting requirements. With respect to calculating baseline actual emissions, DTE first selected consecutive 24-month periods within the five years immediately preceding construction for each pollutant: (a) October 2006 through September 2008 for nitrogen oxide (NOx); (b) July 2006 through June 2008 for sulfur dioxide (SO_2); and (c) January 2008 through December 2009 for particulate matter (PM). Ex. 3, Letter from Kelly L. Guertin, DTE, to William Presson, MDEQ at 3 (Mar. 12, 2010); Ex. 4, Supplemental Declaration of Skiles W. Boyd (Supp. Boyd Decl.) ¶ 4.a. DTE then tabulated total emissions for these periods, including any emissions associated with startup, shutdown or malfunction. Supp. Boyd Decl. ¶¶ 4.a, 4.c. Fugitive emissions were not included because they were not quantifiable. *Id.* ¶ 4.d. DTE did not need to adjust any of these emissions downward,

[5] These types of boiler tube component replacements are common in the utility industry, due to the harsh conditions that exist in the combustion chamber of such boilers. Every utility in the country must do them to maintain the efficiency, reliability, and safety of the nation's electric generating system. *See* Declaration of Jerry L. Golden, ECF No. 46-10. For this reason, Detroit Edison contends that these projects are routine maintenance, repair, and replacement under NSR, 40 C.F.R. § 52.21(b)(2)(iii)(*a*). *See Nat'l Parks Conservation Ass'n v. Tenn. Valley Auth.*, No. 3:01-CV-71, 2010 WL 1291335, *27-34 (E.D. Tenn. Mar. 31, 2010) (finding similar boiler tube component replacements "routine"). This is an independent reason why these projects did not trigger NSR that was not at issue in the appeal.

because none of the emissions exceeded any enforceable limitation, *id.* ¶ 4.e., and the data for each of these periods was recorded by the continuous emissions monitoring system (CEMS) for Monroe Unit 2 and thus was more than adequate, *id.* ¶ 4.b.

With respect to projected actual emissions, DTE relied heavily on the projections it made in the company's 2010 Power Supply Cost Recovery (PSCR) filing submitted in September 2009 to the Michigan Public Service Commission (MPSC). *Id.* ¶ 5. These annual PSCR submissions are intended to reflect the Company's best estimate, considering all relevant information, as to the demand for its power generation units during the coming year and its cost to deliver power to its customers. Ex. 5, Tr. of Gordon P. Usitalo 30(b)(6) Dep. at 76-79, June 9, 2011. To make this submission, DTE used a sophisticated "production cost model" called PROMOD to simulate the dispatch of each of its power plants, including Monroe Unit 2, five years into the future. Supp. Boyd Decl. ¶ 5. The inputs for this PROMOD model are exhaustive, including among other things the estimated demand profile, estimated coal prices, estimated natural gas prices, the cost of emission "allowances" that must be purchased to comply with other CAA regulations, planned outages at various units, and estimates of random outages. *Id.* ¶ 5.b. This analysis indicated that Monroe Unit 2 would experience its highest utilization during calendar year 2013, *id.* ¶ 5.a., and that emissions during that year (before accounting for causation) would be higher than baseline actual emissions. *See* Boyd Decl. ¶ 17.

As required by the regulations, the company accounted for SSM emissions in the projection. Specifically, DTE calculated average emission rates for use in the projection based on total emissions and other data reported in CEMS before the projects, including the baseline periods, which would include the impacts of start-up, shutdown and malfunction on average emission rates. Supp. Boyd Decl. ¶ 5.c. "Fugitive" emissions were not included because the

company concluded they were not quantifiable and, in any event, would be no greater than fugitive emissions during the baseline period. *Id.* ¶ 5.d.

The company then excluded emissions caused by independent factors that the unit was capable of accommodating during the baseline period. Based on the company's business and engineering judgment and its understanding of the inputs used as part of its PSCR submission for 2010, DTE concluded that any increase in emissions over baseline actual emissions would be attributable to factors other than the project, in particular the company's belief in mid-2009 that there would be substantial demand for power from all of the units in DTE's portfolio. *Id.* ¶ 5.e. Finally, the Company concluded that the emissions it sought to exclude could have been accommodated during the baseline period, because the unit had greater availability during the baseline period than the highest expected utilization of the unit after the project. *Id.*

Consistent with the Company's practice for almost a decade, Detroit Edison then submitted a planned outage notification to MDEQ on March 12, 2010, before commencing work on the projects. *See* Ex. 3. That notice (i) addressed each of the information requirements of the Michigan NSR rules, *see* Mich. Admin. Code R. 336.2818(3)(a); (ii) explained why the repairs were projects within the NSR "routine maintenance, repair, and replacement" exclusion; and (iii) explained why, in any event, the projects would not result in any "significant emissions increase." *Id.*[6] MDEQ did not question Detroit Edison's analysis, either then or since. Boyd Decl. ¶ 17. The projects started on March 13, 2010, and concluded on June 20, 2010. *Id.* ¶ 18.

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[6] The 2010 projects on Monroe Unit 2 triggered the "reasonable possibility" requirements of 40 C.F.R. § 52.21(r)(6)(vi)(*b*) because, before accounting for causation, Detroit Edison's projection showed an increase in emissions of more than 50% of the significance threshold. But after accounting for causation by excluding factors unrelated to the project, the projects were not projected to cause any increase in emissions and therefore were not subject to the more stringent reporting requirements applicable to projects that trigger "reasonable possibility" under

(Continued . . . .)

In the nearly three years since the 2010 projects were completed, Monroe Unit 2 has not exceeded pre-project emissions on an annualized basis. Supp. Boyd Decl. ¶ 7. In fact, the unit's actual emissions have been substantially less than baseline emissions for each of 2011 and 2012. *Id.* And they will decrease further with the completion of the major air pollution control retrofit project at Monroe Unit 2 in 2014. Boyd Decl. ¶¶ 8-9.

ARGUMENT

DTE complied with the 2002 NSR Reform Rules' objective requirements for conducting preconstruction projections. As explained above, there are nine such requirements:

With respect to the requirements for calculating "baseline actual emissions," the operator must:	
1. Select a consecutive 24-month period within the five years preceding construction for each regulated pollutant and calculate average annual emissions for that pollutant.	§ 52.21(b)(48)(i)
2. Include SSM emissions and fugitive emissions (to the extent quantifiable).	§ 52.21(b)(48)(i)(*a*)
3. Adjust emissions downward to account for any emissions above any legally enforceable limit.	§ 52.21(b)(48)(i)(*b*)
4. Ensure adequacy of data for the 24-month period selected.	§ 52.21(b)(48)(i)(*d*)
With respect to the requirements for calculating "projected actual emissions," the operator must:	
5. Project emissions for the 5 years following the project and identify the "maximum annual rate ... at which [the unit] is projected to emit a regulated NSR pollutant in any one of the 5	§ 52.21(b)(41)(i)

§ 52.21(r)(6)(vi)(*a*). *See* Boyd Decl. ¶ 15. Nonetheless, consistent with company practice, Detroit Edison treated the projects as if they did trigger the additional reporting requirements and submitted a notice of these projects and its emissions projection analysis to its permitting authority, MDEQ. This Court ruled in its Summary Judgment Order that DTE's notice was timely and consistent with the regulatory requirements. Summary Judgment Order at 10, ECF No. 160. On appeal, the Government abandoned its challenge to the timeliness or content of DTE's notice, but still suggested vaguely that DTE's filing of the notice shortly before the project started was somehow improper. The Sixth Circuit rejected that suggestion. Sixth Cir. Op. at 11.

years (12-month period) following the date the unit resumes regular operation after the project."	
6. "[C]onsider all relevant information, including . . . the company's own representations," its "expected business activity," and its "filings with the State or Federal regulatory authorities."	§ 52.21(b)(41)(ii)(*a*)
7. Include SSM emissions and fugitive emissions (to the extent quantifiable).	§ 52.21(b)(41)(ii)(*b*)
8. "[E]xclude ... that portion of the unit's emissions following the project" that the unit "could have accommodated" during the baseline period "and that are also unrelated to the particular project, including any increased utilization due to product demand growth."	§ 52.21(b)(41)(ii)(*c*)
After baseline actual emissions and projected actual emissions have been calculated, the operator must:	
9. Determine whether, for any pollutant, projected actual emissions exceed baseline actual emissions by the significant amount specified in § 52.21(b)(23), and if not, whether any of the "reasonable possibility" notice and recordkeeping requirements have been triggered.	§ 52.21(a)(2)(iv)(*c*) § 52.21(r)(6)

The undisputed facts demonstrate that DTE complied with each of these requirements. *Supra* at 13-16.[7]

Significantly, the Government has never contended otherwise. In its NOV, the Government alleged that the three boiler tube replacement projects were "major modifications" constructed with an NSR permit. Ex. 1 ¶¶ 21-26. The Government did not, however, contend that DTE had failed to comply with any of the explicit instructions governing preconstruction

[7] Should this Court conclude that DTE failed to comply with one of these requirements, the conclusion is ***not*** a finding that the 2010 Monroe Unit 2 projects were major modifications. The actual post-project data confirm that these projects were anything but. Instead, the result is a finding of a one-time violation of the regulations governing projections, justifying, at most, a one-time civil penalty for the violation. 42 U.S.C. § 7413(b); 40 C.F.R. § 19.4.

projections.[8] The Government's Complaint was similar—DTE constructed a major modification without a permit. Compl. ¶¶ 50-51, 55-56, ECF No. 1. Again, there is no mention of any failure by DTE to comply with the regulations' specific instructions governing projections.

As both the NOV and the Complaint make clear, the Government's contention always has been that the 2010 projects were, in fact, major modifications. And the Government has sought to prove its case by second-guessing DTE's projection based on the Government's own post hoc preconstruction projection. As its counsel made clear at oral argument in the Court of Appeals, the Government intends to ask the Court to look at two preconstruction projections—the actual analysis performed by DTE before construction and the Government's made-for-litigation analysis—and then decide which one is "better." If the Court likes the Government's analysis better, the Government argues, then DTE can be held liable—not for violating the rules governing projections, but rather for constructing a major modification without a permit. The Sixth Circuit explicitly rejected this "gotcha" view of NSR enforcement. Sixth Cir. Op. at 10.[9]

Reality also forecloses the Government's theory. Any attempt to second-guess Detroit Edison's projections at this stage would run into a clear problem—emissions at Monroe Unit 2 have decreased since the projects. The only "correct" projection anyone could make at this point would be one that shows a decrease in emissions. So even if this Court were to indulge the

---

[8] The absence of any allegation in the NOV that DTE failed to comply with the regulations' specific instructions governing preconstruction projections means the Court lacks jurisdiction to consider the question. *See* Order Granting Defs.' Mot. for a Protective Order, May 3, 2011, ECF No. 104.

[9] *See also,* Oral Arg. at 46:20, Nov. 27, 2012 (Judge Rogers: "The only way you can really use a lever to force them to get a permit which would put them to a lower level than they now have is to second guess their projection in a way that projects it higher than what even turns out to be reality.").

Government's Orwellian view of NSR enforcement, it could never prove what it intends to prove.

CONCLUSION

For these reasons, Detroit Edison's motion for summary judgment should be granted.

Respectfully submitted, this 22nd day of May, 2013.

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CERTIFICATE OF SERVICE

I hereby certify that on May 22, 2013, the foregoing **DEFENDANTS' BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS** was served electronically only on the following attorneys of record in accordance with an agreement reached among the parties:

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UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, and NATURAL RESOURCES DEFENSE COUNCIL, INC. AND SIERRA CLUB, Intervenor-Plaintiffs, v. DTE ENERGY COMPANY AND DETROIT EDISON COMPANY, Defendants.	Civil Action No. 2:10-cv-13101-BAF-RSW Judge Bernard A. Friedman Magistrate Judge R. Steven Whalen

DEFENDANTS' MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS

Pursuant to Fed. R. Civ. P. 56, Defendants DTE Energy Company and Detroit Edison Company, by counsel, hereby move for summary judgment. For the reasons set forth in the accompanying memorandum of law, Defendants are entitled to judgment as a matter of law as to each of EPA's claims in this action.

In accordance with Local Rule 7.1(a)(2), counsel for Defendants conferred with counsel for EPA, and explained the nature of this motion and its legal basis. EPA did not concur in the relief sought.

Respectfully submitted this 22nd day of May 2013.

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I hereby certify that on May 22, 2013, the foregoing **DEFENDANTS' MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS** was served electronically only on the following attorneys of record in accordance with an agreement reached among the parties:

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UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, and NATURAL RESOURCES DEFENSE COUNCIL, INC. AND SIERRA CLUB, Intervenor-Plaintiffs, v. DTE ENERGY COMPANY AND DETROIT EDISON COMPANY, Defendants.	Civil Action No. 2:10-cv-13101-BAF-RSW Judge Bernard A. Friedman Magistrate Judge R. Steven Whalen

DEFENDANTS' BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS

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STATEMENT OF ISSUE PRESENTED

1. In its March 28, 2013, decision, the Sixth Circuit concluded that the legal premises underlying this Court's decision to grant DTE's motion for summary judgment were "largely correct." The Government is not allowed to second-guess an operator's projection to prove that the operator's projection was faulty, much less to prove that an unpermitted "major modification" has occurred. But the Sixth Circuit remanded the case to allow the Court to consider whether DTE complied with the objective requirements governing preconstruction projections under the 2002 NSR Reform Rules.

Is DTE entitled to judgment as a matter of law where the undisputed facts establish that DTE has complied with the objective requirements of EPA's regulations governing preconstruction projections and the Government has never contended otherwise?

Defendants' Answer: Yes.

CONTROLLING OR OTHER APPROPRIATE AUTHORITY

Preamble to EPA's 1992 NSR Rules Amendments

57 Fed. Reg. 32,314 (July 21, 1992)

Preamble to EPA's 2002 NSR Rules Amendments

67 Fed. Reg. 80,186 (Dec. 31, 2002)

Relevant Federal Regulations

40 C.F.R. § 52.21(a)(2)(iii)
40 C.F.R. § 52.21(a)(2)(iv)
40 C.F.R. § 52.21(b)(2)(iii)
40 C.F.R. § 52.21(b)(20)
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40 C.F.R. § 52.21(r)(6)(vi)

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

CAA	Clean Air Act
CEMS	Continuous Emissions Monitoring System
EPA	United States Environmental Protection Agency
MDEQ	Michigan Department of Environmental Quality
MPSC	Michigan Public Service Commission
NNSR	Nonattainment New Source Review
NOx	Nitrogen Oxide
NSR	New Source Review
PM	Particulate Matter
PSCR	Power Supply Cost Recovery
PSD	Prevention of Significant Deterioration
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown and Malfunction

PRELIMINARY STATEMENT

Two years ago, Defendants DTE Energy Company and Detroit Edison Company (now called DTE Electric Company) (collectively, DTE) asked the Court to enter summary judgment in favor of DTE in this enforcement case under the Clean Air Act's (CAA) New Source Review (NSR) program. Under the U.S. Environmental Protection Agency's (EPA's or Agency's) 2002 NSR Reform Rules and consistent with the statutory objective of NSR, construction projects are not "major modifications" unless they cause an increase in emissions. DTE had concluded before construction that the 2010 routine repair and replacement projects at DTE's Monroe Unit 2 power plant would not cause an increase in emissions, and actual post-project data then available confirmed as much. The Government could only prove its case by second-guessing DTE's preconstruction emissions projection, and this, DTE argued, was not allowed. The Court agreed and granted DTE's motion. *See* Op. & Order Granting Defs.' Mot. for Summ. J. (Summary Judgment Order), Aug. 23, 2011, ECF No. 160.

On appeal, the Sixth Circuit endorsed the central premises of this Court's decision, explaining that "the district court's premises are largely correct." *United States v. DTE Energy Co.*, No. 11-2328 (Sixth Cir. Op.), slip op. at 9 (6th Cir. Mar. 28, 2013). The 2002 NSR Reform Rules create a "project-and-report" system for determining NSR applicability. *Id.* at 10. Those rules do not allow the Government to second-guess the operator's determination, because that would create, in effect, a "prior approval" system. *Id.* Instead, the operator's judgment will be judged by whether emissions at the unit increase after the project. *Id.* at 12. And the source can manage its emissions to ensure that they do not increase. *Id.*

But the Sixth Circuit panel majority concluded that this Court's decision may have gone too far in one limited respect—it seemed to preclude ***any*** challenge to the operator's preconstruction projection "before there is post-construction data to prove or disprove it." *Id.* at

2. In other words, the Sixth Circuit panel majority believed that this Court's decision, if applied to its broadest extent, would preclude not only impermissible second-guessing, but also more basic actions to ensure that the operator complied with the "specific instructions" governing preconstruction projections. *Id.* at 9. "[The Government] is not categorically prevented from challenging even blatant violations of its [projection] regulations. . . ." *Id.* at 2. So the Sixth Circuit reversed and remanded.

The narrow question remaining for this Court to answer on remand is straightforward: Did DTE comply, "at a basic level," *id.* at 10, with the regulations' "specific instructions" for conducting preconstruction projections? The answer is "yes." The Government has never contended otherwise.

LEGAL BACKGROUND

I. The 2002 NSR Reform Rules Create a Project-and-Report System, Not a Prior Approval System.

As with previous iterations of EPA's NSR regulations, the 2002 NSR Reform Rules[1] require operators to determine, before commencing construction, whether a construction project is projected to cause a significant increase in emissions and thus trigger CAA permitting requirements. *Id.* at 4-6. For projects like those at issue here that only involve existing emissions units, the rules require the operator to project its future emissions and compare those emissions to baseline actual emissions:

> [a] significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the **projected actual emissions** ... and the **baseline actual emissions** ... for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in paragraph (b)(23) of this section).

[1] *See* 67 Fed. Reg. 80,186 (Dec. 31, 2002).

40 C.F.R. § 52.21(a)(2)(iv)(*c*) (emphases added). If projected actual emissions[2] in any one of the five years after the project exceed baseline actual emissions by greater than the significance threshold for any regulated pollutant, the operator must get a permit. And even if the calculation does not show a significant increase, the operator nonetheless may be required to comply with certain recordkeeping and reporting requirements.

These rules therefore prescribe three basic steps: (1) determine "baseline actual emissions"; (2) determine "projected actual emissions"; and (3) compare the two. Sixth Cir. Op. at 6.

A. "Baseline Actual Emissions"

"Baseline actual emissions" is defined as "the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project." 40 C.F.R. § 52.21(b)(48)(i). The regulations specifically require the operator to do four things when determining baseline actual emissions.

First, and most obviously, the operator must pick the 24-month baseline period. That consecutive 24-month period must occur within the five years immediately preceding actual construction of the project, unless the operator requests the use of another period that is deemed "more representative." *Id.* And the operator can select a different consecutive 24-month period for each regulated pollutant. *Id.* § 52.21(b)(48)(i)(*c*). The operator then calculates the average

[2] As discussed more fully below, the term "projected actual emissions" under the regulations incorporates causation by excluding emissions increases unrelated to the project at issue. *See infra* at 4-5 (discussing 40 C.F.R. § 52.21(b)(41)).

annual rate based on that 24-month period. (The math is easy—simply divide the total emissions for that period by two.)

Second, the regulations tell the operator to include both fugitive emissions, to the extent quantifiable, and emissions associated with startup, shutdown and malfunction (SSM) in calculating average emissions rate. *Id.* § 52.21(b)(48)(i)(*a*). "Fugitive emissions" are "those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening." *Id.* § 52.21(b)(20). SSM emissions are the (sometimes, for some pollutants) higher rates of emission that occur during startup, shutdown and malfunction.

Third, the operator must adjust baseline emissions downward to subtract non-compliant emissions. *Id.* § 52.21(b)(48)(i)(*b*). These are emissions "that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period." *Id.*

Finally, the regulations instruct the operator to make sure there is adequate data for the 24-month period selected. "The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year ...." *Id.* § 52.21(b)(48)(i)(*d*).

B. "Projected Actual Emissions"

"Projected actual emissions" is defined as the "maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit" a regulated PSD pollutant "in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project. . . ." *Id.* § 52.21(b)(41)(i). The regulations direct operators to do four things in making this projection.

First, the operator must project emissions for the 5 years following the project and identify the "maximum annual rate ... at which [the unit] is projected to emit a regulated NSR

pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project. . . ." *Id.*; Sixth Cir. Op. at 5.

Second, "the owner or operator ... [s]hall consider all relevant information," including the "company's own representations," its "expected business activity," and its "filings with the State or Federal regulatory authorities." 40 C.F.R. § 52.21(b)(41)(ii)(*a*). But critically, the rules do not provide an exhaustive list of relevant factors or tell the operator what weight to apply to any one of them. That is left to the operator's business and engineering judgment.

Third, as with its calculation of baseline actual emissions, the operator must include SSM emissions and fugitive emissions (to the extent quantifiable). *Id.* § 52.21(b)(41)(ii)(*b*).

Finally, reflecting the causation requirement of the statute and regulations,[3] the owner/operator "[s]hall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project" that the unit "could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions ... and that are also unrelated to the particular project, including any increased utilization due to product demand growth." *Id.* § 52.21(b)(41)(ii)(*c*).

C. Comparison of "Baseline Actual Emissions" and "Projected Actual Emissions"

After the operator has calculated baseline actual emissions and projected actual emissions, it must compare the two numbers and determine whether a "significant" increase in emissions is projected to occur. A table in the regulations defines what constitutes "significant" for each regulated pollutant. *Id.* § 52.21(b)(23). If the projects are projected to cause a

[3] 67 Fed. Reg. at 80,203 ("Both the statute and ... regulations indicate that there should be a causal link between the proposed change and any post-change increase in emissions.").

significant net emissions increase, the operator must get a permit. *See* 40 C.F.R. § 52.21(a)(2)(iii).

If the comparison shows no significant increase, but still a "reasonable possibility" that emissions could increase—as defined by § 52.21(r)(6)(vi)(*b*) or § 52.21(r)(6)(vi)(*a*)—the operator must comply with one of two sets of notification requirements. For all such projects, "[b]efore beginning actual construction ..., the owner or operator shall document and maintain a record" that contains the "projected actual emissions, the amount of emissions excluded under paragraph (h)(41)(ii)(*c*) ... and an explanation for why such amount was excluded," as well as a "description of the project" and an "[i]dentification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project." *Id.* § 52.21(r)(6)(i)(*a*)-(*c*). Additional obligations apply to projects that fall into the "reasonable possibility" category based on § 52.21(r)(6)(vi)(*a*)—i.e., projects that show an increase of greater than 50% of the significant amount even after excluding emissions increases that are unrelated to the projects. As to those projects, "before beginning actual construction, the owner or operator" must also provide its preconstruction analysis to the permitting authority. *Id.* § 52.21(r)(6)(ii). The source is not "require[d] ... to obtain any determination from the Administrator before beginning actual construction." *Id.*; *see also* Sixth Cir. Op. at 10 (explaining that the regulations do not require approval of projections). Rather, once pre-project analysis and recordkeeping requirements are met (i.e., notification is sent to the permitting authority or records are maintained, as applicable under the rules), the 2002 NSR Reform Rules provide that construction may begin in full compliance with the CAA. And after construction is complete, the operator must calculate and maintain a record of emissions in tons per year of any NSR-regulated pollutant and (for electric

generating units) report those emissions to the relevant regulatory authority annually. 40 C.F.R. § 52.21(r)(6)(iii)-(iv).

II. The 2002 NSR Reform Rules Measure the Validity of the Source's Preconstruction Projection Through Postconstruction Emissions Data.

The 2002 NSR Reform Rules make clear that the Agency may not second-guess the operator's business and engineering judgment in making a projection that emissions will not increase due to a project by clarifying that the validity of the projection will be judged by actual post-project emissions data. Consistent with the statute, which defines "modification" as a change that "increases the amount" of an emitted air pollutant, the revised rules state unequivocally that a "project is a major modification for a regulated NSR pollutant if it causes ... a significant emissions increase ... and a significant net emissions increase." *Id.* § 52.21(a)(2)(iv)(*a*). And in the very next sentence, the rules make clear that a project "is ***not*** a major modification ***if it does not cause a significant emissions increase***." *Id.* (emphases added). So in the absence of evidence showing an actual increase in emissions caused by the project, a source operator cannot be held liable for constructing a major modification without a permit.

The rules reinforce the primacy of postconstruction real emissions data in judging whether a major modification has occurred by clarifying that such data either confirm or trump preconstruction projections. After describing how an operator should project post-project emissions, EPA makes clear that, "[r]egardless of ***any such*** preconstruction projections, a major modification" depends on whether "the project ***causes a significant emissions increase*** ...." *Id.* § 52.21(a)(2)(iv)(*b*) (emphases added). This provision applies expansively to "any such" projection, whether it is the actual projection performed by the operator or a projection intended to "second-guess" the operator's projection after the fact. This Court held as much in its summary judgment decision, and the Sixth Circuit agreed. Sixth Cir. Op. at 9 ("[T]he district

court's premises are largely correct."); *id.* at 11 ("[It] is entirely consistent with the statute and regulations" for a source "to keep its post-construction emissions down in order to avoid the significant increases that would require a permit.").

STATEMENT OF THE CASE

I. Procedural History

A. The Government's Notice of Violation and Subsequent Enforcement Action

In June 2010, the Government issued DTE a "Notice and Finding of Violation" (NOV) that accused DTE of violating the NSR regulations. Ex. 1, NOV. Specifically, the Government alleged that routine boiler tube replacement projects that DTE commenced at Monroe Unit 2 in March 2010 were "major modifications." *Id.* at 4. The Government did not allege that DTE failed to follow the specific instructions for determining NSR applicability. Rather, the Government contended that DTE should have reached a different conclusion—i.e., that the projects would cause a significant increase in emissions. The Government and DTE were unable to resolve the matter, so the Government filed this lawsuit in August 2010, shortly after Monroe Unit 2 resumed operations and well before annual data were available to show whether Monroe Unit 2 had emitted any regulated pollutant at greater-than-baseline levels, much less whether the projects had ***caused*** emissions to increase. In its Complaint, the Government asserted two essentially identical claims—that DTE violated the Prevention of Significant Deterioration (PSD) (Count One) and Nonattainment New Source Review (NNSR) (Count Two) programs by constructing a major modification at Monroe Unit 2 without a permit.

B. The Court Grants Detroit Edison's Motion for Summary Judgment.

DTE moved for summary judgment, because the Government had no evidence showing that emissions at Monroe Unit 2 increased after the 2010 projects. The Government's case instead was built on exactly the type of second-guessing that the 2002 NSR Reform Rules do not

tolerate. Specifically, the Government intended to prove its case by showing, through expert testimony, that Detroit Edison ***should have projected*** that the projects ***would cause*** an increase in emissions, regardless of DTE's projection that no increase would result from the project and regardless of whether actual post-project emissions ever increased above baseline levels (and, indeed, regardless of whether emissions actually decreased, as they did since Monroe Unit 2 returned to operation after the projects, almost three years ago).

This Court agreed with DTE that the 2002 NSR Reform Rules do not allow the type of second-guessing that was the cornerstone of the Government's liability proof. *See* Summary Judgment Order, ECF No. 160. DTE had complied with the rules' pre-construction source obligations governing notice requirements, and actual post-project emissions data did not show an actual significant increase in emissions. *Id.* at 3-6. Any contention that the 2010 projects were, in fact, major modifications was premature. *Id.* at 9. This Court also rejected the Government's belated claim that DTE's preconstruction notice to the Michigan Department of Environmental Quality (MDEQ) was deficient, both because the notice met all of the regulatory requirements and because the Government failed to allege in its NOV that DTE's notice was deficient. *Id.* at 12.

The Government appealed.

C. The Sixth Circuit Decision

1. The Sixth Circuit Endorsed Key Premises of This Court's 2011 Decision.

On appeal, the Government pursued the same enforcement theory it had pursued unsuccessfully in this Court. The Government argued that it should be able to prove that a major modification has occurred by second-guessing the operator's projection: "[The Government] can … enforce PSD requirements by demonstrating that the operator ***should have*** projected that

emissions would increase." Br. for the United States as Appellant at 29 (emphasis in original); *see also* Reply Br. for the United States as Appellant at 5 (claiming that "the statute itself, the ... regulation, case law, and decades of NSR practice ... all ... make clear that EPA can enforce NSR based on the pollution an operator should have expected to result from construction"). The Government contended that it need not adduce evidence of an actual increase in emissions after the project to meet its burden. Br. for the United States as Appellant at 31. It would suffice, argued the Government, to show that a "projection" made after the fact in the context of an enforcement case would have shown an increase. *Id.*

The Sixth Circuit issued its decision on March 28, 2013. In that decision, the Sixth Circuit did not question the basic premises of this Court's summary judgment decision or disagree with this Court's conclusion that there can be no modification where there is no actual emissions increase due to the project. "[T]he district court's premises are largely correct," the Court observed. Sixth Cir. Op. at 9. The 2002 NSR Reform Rules "do[] not contemplate approval of the projection prior to construction." *Id.* at 10. The regulations, therefore, "allow operators to undertake projects without having EPA second-guess their projections." *Id.* at 2. Were EPA allowed to "second-guess the making of the projections, then a project-and-report scheme would be transformed into a prior approval scheme." *Id.* at 10.[4] Thus, the Sixth Circuit

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[4] The Court explored this topic at length with the Government's counsel at oral argument:

> **JUDGE ROGERS**: [You] would have to say there's some Regulation which [DTE] interpreted incorrectly in making these projections. Is that correct?
>
> **MR. BENSON**: Well, I think what the District Court would find is that one side or the other's projection was inaccurate based on the facts. It is really a factual question, and then there is a legal question.
>
> **JUDGE ROGERS**: Alright. That puzzles me entirely.
>
> * * *

(Continued . . . .)

observed, "submitting [the] ... projection one day before construction began ... is fully consistent with a project-and-report scheme." *Id.* at 11. And "keep[ing] ... post-construction emissions down in order to avoid the significant increases that would require a permit ... is entirely consistent with the statute and regulations." *Id.* Indeed, "purposely manag[ing] the cost of electricity from Monroe Unit #2 to keep its emissions from increasing....further[s] the goal of the statute." *Id.* at 13.

The Sixth Circuit also agreed with this Court on the role of post-project data—they dictate whether or not a modification has occurred, where the operator has projected no increase in emissions due to the project. "If [the] company's projections are later proven incorrect, EPA can bring an enforcement action" alleging a major modification. *Id.* at 12. This reflects the nature of the statutory and regulatory modification program: "As EPA conceded at oral argument, the statute and regulations allow sources to replace parts indefinitely without losing their grandfathered status so long as none of those changes cause an emissions increase." *Id.* at 12.

> **MR. BENSON**: I mean you have to comply with the regulations and . . . if there is a projection that complies with the regulations, there may be two different projections that both sort of on a superficial level meet the requirements of the regulations. But they would rely on different facts that would be found by the district court. ... And that is the type of analysis that EPA and the Company is going to do and in a court below the court would have to decide whose analysis makes sense.
>
> **JUDGE ROGERS**: Well here's the problem I have with that. That sounds like getting a permit to not get a permit. It sounds like you have to get approval from EPA as to your calculations before you can proceed without a permit.

Oral Arg. at 50:39, Nov. 27, 2012.

2. The Sixth Circuit Carves Out a Narrow Category of Claims to Ensure That the System Works.

But the Sixth Circuit also concluded that this Court's legal holding might have been stated too broadly in one limited respect. According to the panel majority, "This appeal raises a single question: can EPA challenge that projection before there is post-construction data to prove or disprove it?" *Id.* at 1. The panel answered this question in the affirmative: even though an operator's projections are not subject to second-guessing by EPA, "[t]he operator has to make projections according to the requirements for such projections contained in the regulations. If the operator does not do so, and proceeds to construction, it is subject to an enforcement proceeding." *Id.* at 10. Stated differently, "If there is no projection, or the projection is made in contravention of the regulations guiding how the projection is to be made, then the system is not working." *Id.* "[A]t a ***basic level*** the operator has to make a projection in compliance with how the projections are to be made." *Id.* (emphasis added).

The category of enforcement actions contemplated by the Sixth Circuit's decision is narrow. EPA is authorized to bring an enforcement action if it believes the operator has not conducted a projection at all or if the operator has not complied with the "requirements for such projections contained in the regulations." *Id.* at 15. As the Court of Appeals explained by way of example, "EPA must be able to prevent construction if an operator ... uses an improper baseline period or uses the wrong number to determine whether a projected emissions increase is significant." *Id.* at 11. But that authorization is limited by the Sixth Circuit's clear prohibition against second-guessing. For example, EPA cannot substitute its judgment for that of the operator as to the likely demand for the unit in the projected years or with respect to the weight given to each of the relevant factors the operator must consider. The object of such an action, rather, is to ensure "at a basic level" that "the operator has ... [made] a projection in compliance

with how the projections are to be made." *Id.* at 10. But critically, "this does not mean that the agency gets ***in effect*** to require prior approval of the projections." *Id.* (emphasis added).

II. Statement of Undisputed Material Facts

From March to June 2010, Detroit Edison removed Monroe Unit 2 from service to perform a number of routine maintenance projects, including the replacement of three boiler tube components—the economizer, the pendant reheater, and a portion of the waterwall.[5] Ex. 2, Declaration of Skiles W. Boyd (Boyd Decl.) ¶ 17.

Before commencing construction, DTE followed the NSR regulations' specific instructions for determining whether the projects would trigger CAA permitting requirements. With respect to calculating baseline actual emissions, DTE first selected consecutive 24-month periods within the five years immediately preceding construction for each pollutant: (a) October 2006 through September 2008 for nitrogen oxide (NOx); (b) July 2006 through June 2008 for sulfur dioxide (SO_2); and (c) January 2008 through December 2009 for particulate matter (PM). Ex. 3, Letter from Kelly L. Guertin, DTE, to William Presson, MDEQ at 3 (Mar. 12, 2010); Ex. 4, Supplemental Declaration of Skiles W. Boyd (Supp. Boyd Decl.) ¶ 4.a. DTE then tabulated total emissions for these periods, including any emissions associated with startup, shutdown or malfunction. Supp. Boyd Decl. ¶¶ 4.a, 4.c. Fugitive emissions were not included because they were not quantifiable. *Id.* ¶ 4.d. DTE did not need to adjust any of these emissions downward,

[5] These types of boiler tube component replacements are common in the utility industry, due to the harsh conditions that exist in the combustion chamber of such boilers. Every utility in the country must do them to maintain the efficiency, reliability, and safety of the nation's electric generating system. *See* Declaration of Jerry L. Golden, ECF No. 46-10. For this reason, Detroit Edison contends that these projects are routine maintenance, repair, and replacement under NSR, 40 C.F.R. § 52.21(b)(2)(iii)(*a*). *See Nat'l Parks Conservation Ass'n v. Tenn. Valley Auth.*, No. 3:01-CV-71, 2010 WL 1291335, *27-34 (E.D. Tenn. Mar. 31, 2010) (finding similar boiler tube component replacements "routine"). This is an independent reason why these projects did not trigger NSR that was not at issue in the appeal.

because none of the emissions exceeded any enforceable limitation, *id.* ¶ 4.e., and the data for each of these periods was recorded by the continuous emissions monitoring system (CEMS) for Monroe Unit 2 and thus was more than adequate, *id.* ¶ 4.b.

With respect to projected actual emissions, DTE relied heavily on the projections it made in the company's 2010 Power Supply Cost Recovery (PSCR) filing submitted in September 2009 to the Michigan Public Service Commission (MPSC). *Id.* ¶ 5. These annual PSCR submissions are intended to reflect the Company's best estimate, considering all relevant information, as to the demand for its power generation units during the coming year and its cost to deliver power to its customers. Ex. 5, Tr. of Gordon P. Usitalo 30(b)(6) Dep. at 76-79, June 9, 2011. To make this submission, DTE used a sophisticated "production cost model" called PROMOD to simulate the dispatch of each of its power plants, including Monroe Unit 2, five years into the future. Supp. Boyd Decl. ¶ 5. The inputs for this PROMOD model are exhaustive, including among other things the estimated demand profile, estimated coal prices, estimated natural gas prices, the cost of emission "allowances" that must be purchased to comply with other CAA regulations, planned outages at various units, and estimates of random outages. *Id.* ¶ 5.b. This analysis indicated that Monroe Unit 2 would experience its highest utilization during calendar year 2013, *id.* ¶ 5.a., and that emissions during that year (before accounting for causation) would be higher than baseline actual emissions. *See* Boyd Decl. ¶ 17.

As required by the regulations, the company accounted for SSM emissions in the projection. Specifically, DTE calculated average emission rates for use in the projection based on total emissions and other data reported in CEMS before the projects, including the baseline periods, which would include the impacts of start-up, shutdown and malfunction on average emission rates. Supp. Boyd Decl. ¶ 5.c. "Fugitive" emissions were not included because the

company concluded they were not quantifiable and, in any event, would be no greater than fugitive emissions during the baseline period. *Id.* ¶ 5.d.

The company then excluded emissions caused by independent factors that the unit was capable of accommodating during the baseline period. Based on the company's business and engineering judgment and its understanding of the inputs used as part of its PSCR submission for 2010, DTE concluded that any increase in emissions over baseline actual emissions would be attributable to factors other than the project, in particular the company's belief in mid-2009 that there would be substantial demand for power from all of the units in DTE's portfolio. *Id.* ¶ 5.e. Finally, the Company concluded that the emissions it sought to exclude could have been accommodated during the baseline period, because the unit had greater availability during the baseline period than the highest expected utilization of the unit after the project. *Id.*

Consistent with the Company's practice for almost a decade, Detroit Edison then submitted a planned outage notification to MDEQ on March 12, 2010, before commencing work on the projects. *See* Ex. 3. That notice (i) addressed each of the information requirements of the Michigan NSR rules, *see* Mich. Admin. Code R. 336.2818(3)(a); (ii) explained why the repairs were projects within the NSR "routine maintenance, repair, and replacement" exclusion; and (iii) explained why, in any event, the projects would not result in any "significant emissions increase." *Id.*[6] MDEQ did not question Detroit Edison's analysis, either then or since. Boyd Decl. ¶ 17. The projects started on March 13, 2010, and concluded on June 20, 2010. *Id.* ¶ 18.

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[6] The 2010 projects on Monroe Unit 2 triggered the "reasonable possibility" requirements of 40 C.F.R. § 52.21(r)(6)(vi)(*b*) because, before accounting for causation, Detroit Edison's projection showed an increase in emissions of more than 50% of the significance threshold. But after accounting for causation by excluding factors unrelated to the project, the projects were not projected to cause any increase in emissions and therefore were not subject to the more stringent reporting requirements applicable to projects that trigger "reasonable possibility" under

(Continued . . . .)

In the nearly three years since the 2010 projects were completed, Monroe Unit 2 has not exceeded pre-project emissions on an annualized basis. Supp. Boyd Decl. ¶ 7. In fact, the unit's actual emissions have been substantially less than baseline emissions for each of 2011 and 2012. *Id.* And they will decrease further with the completion of the major air pollution control retrofit project at Monroe Unit 2 in 2014. Boyd Decl. ¶¶ 8-9.

ARGUMENT

DTE complied with the 2002 NSR Reform Rules' objective requirements for conducting preconstruction projections. As explained above, there are nine such requirements:

With respect to the requirements for calculating "baseline actual emissions," the operator must:	
1. Select a consecutive 24-month period within the five years preceding construction for each regulated pollutant and calculate average annual emissions for that pollutant.	§ 52.21(b)(48)(i)
2. Include SSM emissions and fugitive emissions (to the extent quantifiable).	§ 52.21(b)(48)(i)(*a*)
3. Adjust emissions downward to account for any emissions above any legally enforceable limit.	§ 52.21(b)(48)(i)(*b*)
4. Ensure adequacy of data for the 24-month period selected.	§ 52.21(b)(48)(i)(*d*)
With respect to the requirements for calculating "projected actual emissions," the operator must:	
5. Project emissions for the 5 years following the project and identify the "maximum annual rate ... at which [the unit] is projected to emit a regulated NSR pollutant in any one of the 5	§ 52.21(b)(41)(i)

§ 52.21(r)(6)(vi)(*a*). *See* Boyd Decl. ¶ 15. Nonetheless, consistent with company practice, Detroit Edison treated the projects as if they did trigger the additional reporting requirements and submitted a notice of these projects and its emissions projection analysis to its permitting authority, MDEQ. This Court ruled in its Summary Judgment Order that DTE's notice was timely and consistent with the regulatory requirements. Summary Judgment Order at 10, ECF No. 160. On appeal, the Government abandoned its challenge to the timeliness or content of DTE's notice, but still suggested vaguely that DTE's filing of the notice shortly before the project started was somehow improper. The Sixth Circuit rejected that suggestion. Sixth Cir. Op. at 11.

years (12-month period) following the date the unit resumes regular operation after the project."	
6. "[C]onsider all relevant information, including . . . the company's own representations," its "expected business activity," and its "filings with the State or Federal regulatory authorities."	§ 52.21(b)(41)(ii)(*a*)
7. Include SSM emissions and fugitive emissions (to the extent quantifiable).	§ 52.21(b)(41)(ii)(*b*)
8. "[E]xclude ... that portion of the unit's emissions following the project" that the unit "could have accommodated" during the baseline period "and that are also unrelated to the particular project, including any increased utilization due to product demand growth."	§ 52.21(b)(41)(ii)(*c*)
After baseline actual emissions and projected actual emissions have been calculated, the operator must:	
9. Determine whether, for any pollutant, projected actual emissions exceed baseline actual emissions by the significant amount specified in § 52.21(b)(23), and if not, whether any of the "reasonable possibility" notice and recordkeeping requirements have been triggered.	§ 52.21(a)(2)(iv)(*c*) § 52.21(r)(6)

The undisputed facts demonstrate that DTE complied with each of these requirements. *Supra* at 13-16.[7]

Significantly, the Government has never contended otherwise. In its NOV, the Government alleged that the three boiler tube replacement projects were "major modifications" constructed with an NSR permit. Ex. 1 ¶¶ 21-26. The Government did not, however, contend that DTE had failed to comply with any of the explicit instructions governing preconstruction

[7] Should this Court conclude that DTE failed to comply with one of these requirements, the conclusion is ***not*** a finding that the 2010 Monroe Unit 2 projects were major modifications. The actual post-project data confirm that these projects were anything but. Instead, the result is a finding of a one-time violation of the regulations governing projections, justifying, at most, a one-time civil penalty for the violation. 42 U.S.C. § 7413(b); 40 C.F.R. § 19.4.

projections.[8] The Government's Complaint was similar—DTE constructed a major modification without a permit. Compl. ¶¶ 50-51, 55-56, ECF No. 1. Again, there is no mention of any failure by DTE to comply with the regulations' specific instructions governing projections.

As both the NOV and the Complaint make clear, the Government's contention always has been that the 2010 projects were, in fact, major modifications. And the Government has sought to prove its case by second-guessing DTE's projection based on the Government's own post hoc preconstruction projection. As its counsel made clear at oral argument in the Court of Appeals, the Government intends to ask the Court to look at two preconstruction projections—the actual analysis performed by DTE before construction and the Government's made-for-litigation analysis—and then decide which one is "better." If the Court likes the Government's analysis better, the Government argues, then DTE can be held liable—not for violating the rules governing projections, but rather for constructing a major modification without a permit. The Sixth Circuit explicitly rejected this "gotcha" view of NSR enforcement. Sixth Cir. Op. at 10.[9]

Reality also forecloses the Government's theory. Any attempt to second-guess Detroit Edison's projections at this stage would run into a clear problem—emissions at Monroe Unit 2 have decreased since the projects. The only "correct" projection anyone could make at this point would be one that shows a decrease in emissions. So even if this Court were to indulge the

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[8] The absence of any allegation in the NOV that DTE failed to comply with the regulations' specific instructions governing preconstruction projections means the Court lacks jurisdiction to consider the question. *See* Order Granting Defs.' Mot. for a Protective Order, May 3, 2011, ECF No. 104.

[9] *See also,* Oral Arg. at 46:20, Nov. 27, 2012 (Judge Rogers: "The only way you can really use a lever to force them to get a permit which would put them to a lower level than they now have is to second guess their projection in a way that projects it higher than what even turns out to be reality.").

Government's Orwellian view of NSR enforcement, it could never prove what it intends to prove.

CONCLUSION

For these reasons, Detroit Edison's motion for summary judgment should be granted.

Respectfully submitted, this 22nd day of May, 2013.

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CERTIFICATE OF SERVICE

I hereby certify that on May 22, 2013, the foregoing **DEFENDANTS' BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS** was served electronically only on the following attorneys of record in accordance with an agreement reached among the parties:

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UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, and NATURAL RESOURCES DEFENSE COUNCIL, INC. AND SIERRA CLUB, Intervenor-Plaintiffs, v. DTE ENERGY COMPANY AND DETROIT EDISON COMPANY, Defendants.	Civil Action No. 2:10-cv-13101-BAF-RSW Judge Bernard A. Friedman Magistrate Judge R. Steven Whalen

DEFENDANTS' BRIEF IN SUPPORT OF
MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH
PRE-CONSTRUCTION PROJECTION REQUIREMENTS

APPENDIX A:
INDEX OF EXHIBITS

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EXHIBIT 1
TO DEFENDANTS' BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS:

EPA, Notice and Finding of Violation (June 4, 2010)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:	)	
	)	
	)	
DTE Energy Company	)	**Proceedings Pursuant to**
and	)	**Section 113(a)(1) and (a)(3) of the**
The Detroit Edison Company	)	**Clean Air Act,**
	)	**42 U.S.C. §7413(a)(1) and (a)(3)**
	)	
Detroit, Michigan	)	**EPA-HQ-2010-MI-1**
	)	
	)	

NOTICE AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency (EPA) is issuing this Notice and Finding of Violation (Notice) under Section 113(a)(1) and 113(a)(3) of the Clean Air Act, 42 U.S.C. § 7413(a)(1) and § 7413(a)(3). The authority to issue this Notice has been delegated to the Director, Air Enforcement Division, Office of Enforcement and Compliance Assurance, U.S. EPA. EPA finds that DTE Energy and the Detroit Edison Company (collectively herein, DTE) are violating the Clean Air Act (Act), 42 U.S.C. §§ 7401 *et seq.*, at its Monroe power plant, as follows:

STATUTORY AND REGULATORY BACKGROUND

Prevention of Significant Deterioration

1. When the Act was passed in 1970, Congress exempted existing facilities, including the coal-fired power plants that are the subject of this Notice, from many of its requirements. However, Congress also made it quite clear that this exemption would not last forever. As the United States Court of Appeals for the D.C. Circuit explained in *Alabama Power v. Costle*, 636 F.2d 323, 400 (D.C. Cir. 1979), "[t]he statutory scheme intends to 'grandfather' existing industries; but...this is not to constitute a perpetual immunity from all standards under the PSD program." Rather, the Act requires grandfathered facilities to install modern pollution control devices whenever the unit is proposed to be modified in such a way that its emissions may increase.

2. On June 19, 1978, EPA promulgated regulations pursuant to Part C of Title I of the Act. 43 *Fed. Reg.* 26403 (June 19, 1978).

3. The Prevention of Significant Deterioration (PSD) provisions of Part C of Title I of the Act establish specific provisions applicable to the construction and modification of sources located in areas designated as either attainment or unclassifiable for purposes of meeting the NAAQS. *See* 42 U.S.C. §§ 7470-7492. These statutory provisions and their implementing regulations at 40 C.F.R.

§ 52.21, collectively known as the PSD program, provide that if a major stationary source located in an attainment area is planning to make a major modification, then that source must obtain a PSD permit before beginning actual construction. *See* 40 C.F.R. § 52.21(i). To obtain this permit, the source must, among other things, undergo a technology review and apply Best Available Control Technology (BACT); perform a source impact analysis; perform an air quality analysis and modeling; submit appropriate information; and conduct additional impact analyses as required.

4. On September 16, 2008, EPA conditionally approved the State of Michigan's PSD program under 40 C.F.R. § 52.21, 73 Fed. Reg. 53366. On March 25, 2010, EPA fully approved Michigan's PSD SIP provisions, 75 Fed. Reg. 14,352. The Michigan PSD SIP provisions are codified at Michigan Admin. Code R. 336.2801 to 336.2830.

5. The PSD regulations appearing at Michigan Admin. Code R. 336.2801 to 336.2830 were incorporated into and part of the Michigan SIP at the time of the major modification at issue in this case, and they have been approved by EPA and are federally enforceable requirements. All citations to the PSD regulations herein refer to the provisions of Michigan SIP as applicable at the time of the Current Construction Activities described herein.

6. Michigan Admin. Code R. 336.2802(3) provides that no new major stationary source or major modification to which R 336.2810 to R 336.2818 apply shall begin actual construction without a permit to install issued under R 336.1201(1)(a) that states that the major stationary source or major modification will meet those requirements.

7. Michigan Admin. Code R. 336.2802(4) provides that this part applies to the construction of new major sources and major modifications to existing major sources in the following manner: (a) . . . a project is a major modification for a regulated new source pollutant if it causes both of the following types of emission increases: (i) significant emissions increase and (ii) significant net emission increase.

Non-attainment New Source Review

8. Part D of Title I of the Act, 42 U.S.C. §§ 7501-7515, sets forth provisions for New Source Review ("NSR") requirements for areas designated as being in non-attainment with the NAAQS standards. These provisions are referred to herein as the "Non-attainment NSR" program. The Non-attainment NSR program is intended to reduce emissions of air pollutants in areas that have not attained NAAQS so that the areas make progress towards meeting the NAAQS. Prior to the effective date of the 1990 Clean Air Act Amendments, P. Law 101-549, effective November 15, 1990, the Non-attainment NSR provisions were set forth at 42 U.S.C. §§ 7501-7508.

9. Under Section 172(c)(5) of the Non-attainment NSR provisions of the Act, 42 U.S.C. § 7502(c)(5), each state is required to adopt Non-attainment NSR SIP rules that include provisions to require permits that conform to the requirements of Section 173 of the Act, 42 U.S.C. § 7503, for the construction and operation of modified major stationary sources within non-attainment areas. Section 173 of the Act, in turn, sets forth a series of minimum requirements for the issuance of permits for major modifications to major stationary sources

within non-attainment areas. 42 U.S.C. § 7503.

10. Section 173(a) of the Act, 42 U.S.C. 7503(a), provides that construction and operating permits may be issued if, *inter alia*: "(a) sufficient offsetting emission reductions have been obtained to reduce existing emissions to the point where reasonable further progress towards meeting the national ambient air quality standards is maintained; and (b) the pollution controls to be employed will reduce emissions to the lowest achievable emission rate."

11. Under 40 C.F.R. Part 51, Appendix S, Emission Offset Interpretative Ruling, no person may undertake a major modification of an existing major stationary source in a non-attainment area without first obtaining a Non-attainment NSR permit.

12. Under Appendix S, a "major stationary source" of NO_x is one that emits or has the potential to emit 100 tons per year or more, and a "significant" net emissions increase of NO_x is one that results in increased emissions of 40 tons per year or more of this pollutant.

13. "Major modification" is defined by 40 C.F.R. Part 51, Appendix S, as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

FACTUAL BACKGROUND

14. DTE is a "person," as that term is defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e).

15. From April 5, 2005, to the present, the Monroe power plant has been located in an area classified as non-attainment for fine particulates ($PM_{2.5}$).

16. At all times relevant to the NOV, the Monroe power plant has been located in an area that has been classified as attainment for SO_2 and ozone.

17. The Monroe power plant is a fossil fuel-fired electric utility steam generating station located in Monroe County, Michigan, and has the potential to emit more than 100 tons per year each of NO_x, SO_2, and particulate matter (PM). The plant consists of four cell burner boilers originally constructed in the early 1970s. Each boiler is connected to a turbine generator with a capacity of 750 to 795 megawatts (MWs).

18. The Monroe power plant is a fossil fuel-fired steam electric plant of more than 250 million British thermal units per hour and is therefore a "major stationary source" within the meaning of 40 C.F.R. § 52.21(b)(1)(i)(a); and a "major emitting facility" within the meaning of Section 169(1) of the Act, 42 U.S.C. § 7479(1). *See also* Michigan Admin. Code R. 336.2801(cc).

19. On March 12, 2010, DTE sent a "Planned Outage Notification" letter ("Notification Letter") to the Michigan Department of Environmental Quality (now known as the MDNRE). The Notification Letter stated that DTE was going to begin a 12-week outage at

Monroe Unit 2 on or about March 13, 2010 and described the activities that would take place during the outage.

20. The construction activities that DTE commenced on or about March 13, 2010, include, but are not limited to the following work on the unit's boiler: replacement of economizer tubes; replacement of reheat pendants; and replacement of a section of waterwall tubes and burner cells.

21. EPA has calculated that the replacement projects identified in Paragrpah 20 are major modifications under the Clean Air Act and the Michigan implementing regulations, as they will result in projected emissions increases in excess of 40 TPY of NO_x and SO_2.

VIOLATIONS

Prevention of Significant Deterioration and Non-Attainment New Source Review

22. The physical change identified in the Paragraph 20, above, resulted in a significant net emissions increase, as defined at Michigan Admin. Code R. 336.2801 to 336.2830 and 40 C.F.R. Part 51, Appendix S, of SO_2, NO_x, $PM_{2.5}$, ozone and/or PM.

23. The physical change identified in Paragraph 20, above, constitutes a "major modification," as that term is defined at Michigan Admin. Code R. 336.2801 to 336.2830 and 40 C.F.R. Part 51, Appendix S.

24. For the physical change identified in Paragraph 20, above, DTE failed to obtain a PSD and/or non-attainment NSR permit as required by Michigan Admin. Code R. 336.2801 to 336.2830 and 40 C.F.R. Part 51, Appendix S.

25. DTE is in violation of PSD requirements, Section 165 of the Act, 42 U.S.C. § 7475, and Michigan Admin. Code R. 336.2801 to 336.2830 for constructing a major modification, as identified in Paragraph 20, above, to an existing major source at its Monroe power plant without applying for or obtaining a PSD permit, and operating the modified unit without installing BACT or going through PSD review, and installing appropriate emission control equipment in accordance with a BACT analysis.

26. DTE is in violation of non-attainment NSR requirements, Sections 171-193 of the Act, 42 U.S.C. §§ 7501-7515, and 40 C.F.R. Part 51, Appendix S, Emission Offset Interpretative Ruling, for constructing a major modification, as identified in Paragraph 20, above, to an existing major source at its Monroe power plant without applying for a permit, and operating the modified unit without installing LAER, obtaining Federally enforceable emission offsets at least as great as the new or modified source's emissions, certifying that all other major sources that it owns or operates are in compliance with the Act, and demonstrating that the benefits of the proposed source or modification significantly outweigh the environmental and social costs imposed as a result of its construction or modification.

ENFORCEMENT AUTHORITY

27. Section 113(a)(1) of the Act, 42 U.S.C. § 7413(a)(1), provides that at any time after the expiration of 30 days following the date of the issuance of a Notice of Violation, the Administrator may, without regard to the period of violation, issue an order requiring compliance with the requirements of the state implementation plan or permit, issue an administrative penalty order pursuant to Section 113(d), or bring a civil action pursuant to Section 113(b) for injunctive relief and/or civil penalties.

28. Section 113(a)(3) of the Act, 42 U.S.C. § 7413(a)(3), provides in part that if the Administrator finds that a person has violated, or is in violation of any requirement or prohibition of any rule...promulgated...under...[Title I of the Act], the Administrator may issue an administrative penalty order under Section 113(d), issue an order requiring compliance with such requirement or prohibition, or bring a civil action pursuant to Section 113(b) for injunctive relief and/or civil penalties.

29. Section 113(b) of the Act, 42 U.S.C. § 7413(b), authorizes the Administrator to initiate a judicial enforcement action for a permanent or temporary injunction, and/or for a civil penalty of up to $25,000 per day for each violation occurring on or before January 30, 1997; up to $27,500 per day for each such violation occurring on or after January 31, 1997, and up to and including March 15, 2004; up to $32,500 per day for each such violation occurring on or after March 16, 2004 through January 12, 2009; and up to $37,500 per day for each such violation occurring on or after January 13, 2009, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701, 40 C.F.R. § 19.4, and 74 Fed. Reg. 626 (Jan. 7, 2009), against any person whenever such person has violated, or is in violation of, *inter alia,* the requirements or prohibitions described in the preceding paragraphs.

Dated 6/4/10

Phillip A. Brooks
Director
Air Enforcement Division

CERTIFICATE OF MAILING

I, Ilana Saltzbart, certify that I sent a Notice of Violation and Finding of Violation, EPA-HQ-2010-MI-1, by Certified Mail, Return Receipt Requested, to:

Skiles W. Boyd, Director of Environmental Management
Detroit Edison Company
2000 Second Ave.
Detroit, MI 48226-1279

I also certify that I sent copies of the Notice of Violation and Finding of Violation by Certified Mail, Return Receipt Requested, to:

Michael Solo, Esq.
DTE Energy
One Energy Plaza
Detroit, MI 48226-1279

Thomas Hess, Unit Supervisor
Compliance and Enforcement Section
Michigan Department of Natural Resources and Environment
Air Quality Division
P.O. Box 30260
Lansing, Michigan 48909

Teresa Seidel, District Supervisor
Michigan Department of Natural Resources and Environment
Southeast Michigan District Office
27700 Donald Court
Warren, Michigan 48092-2793

Jack Larsen, District Supervisor
Michigan Department of Natural Resources and Environment
State Office Building, 4th Floor
301 E. Louis B. Glick Highway
Jackson, Michigan 49201

On the 4th day of June, 2010

CERTIFIED MAIL RECEIPT NUMBER: 7008 2810 0001 0214 1544

EXHIBIT 2
TO DEFENDANTS' BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS:

Declaration of Skiles W. Boyd
(Nov. 3, 2010)

UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, And NATURAL RESOURCES DEFENSE COUNCIL, INC. AND SIERRA CLUB, Proposed Intervenor-Plaintiffs, v. DTE ENERGY COMPANY AND DETROIT EDISON COMPANY, Defendants.	Civil Action No. 2:10-cv-13101-BAF-RSW Judge Bernard A. Friedman Magistrate Judge R. Steven Whalen

DECLARATION OF SKILES W. BOYD

I, Skiles W. Boyd, declare as follows:

A. Background and Experience

1. Since 1978, I have been employed by Detroit Edison Company ("Detroit Edison" or "the Company"), a wholly owned subsidiary of DTE Energy Company. Detroit Edison is an energy company headquartered in Detroit, and has provided electricity to customers throughout Michigan since the early 1900s. Over the past several years, I have been generally responsible for managing the Environmental Management and Resources Organization for Detroit Edison's enterprise, including all of the environmental issues related to Monroe Unit 2, a coal-fired generating unit located at Detroit Edison's Monroe Power Plant in Monroe, Michigan. My current position is Vice President of Environmental Management and Resources.

2. In that capacity, I am a member of a management team that is responsible for ensuring a reliable and affordable supply of electricity to more than 2 million homes and businesses throughout southeastern Michigan, while meeting all environmental regulations. Detroit Edison serves this customer demand with a diverse mix of generating sources in Michigan totaling over 11,000 megawatts ("MWs") of capacity, including seven coal-fired stations, two natural gas-fired stations, one nuclear station, and one hydroelectric station. *See* Declaration Exhibit ("Decl. Ex.") 1 at 1-5 for more information on Detroit Edison's overall operations. Detroit Edison has a long history of investing in environmental controls in order to enhance its environmental stewardship, starting with the installation of electrostatic precipitators to remove particulate emissions at the Trenton Channel Power Plant in the mid-1920s. *See* Decl. Ex. 1 at 11.

3. My specific duties include managing the company's environmental issues such as setting environmental policy, representing the company on environmental issues with the public and in environmental regulatory and legislative development, coordinating environmental studies and conducting environmental audits. I manage a department of approximately 72 people who are subject matter experts in the numerous areas of environmental regulatory compliance. I am active on the Research Advisory and Environmental Councils of the Electric Power Research Institute, the Air and Waste Management Association, the Business Environmental Leadership Council of the Pew Center on Global Climate Change, and the environmental committees of the Edison Electric Institute, and the American Coalition for Clean Coal Electricity. I am also on the board of the Council of Great Lakes Industries, and the Southeast Michigan Sustainable Business Forum. I have spent my entire career in the environmental field since starting at Detroit Edison in 1978.

B. The Monroe Power Plant and its State-of-the-Art Environmental Controls

4. Detroit Edison is the sole owner and operator of the Monroe plant. The plant is located near Detroit, Michigan, where it has operated safely for nearly 40 years. It consists of four large coal-fired electric generating units (Units 1-4) placed in service in the early 1970s. Each year the plant produces approximately 35% of Detroit Edison's total electrical power and 44% of its total fossil fuel-fired power. The Monroe plant is one of the largest employers and taxpayers in Monroe County, Michigan, employing approximately 400 permanent employees and 100 long-term contract employees. Monroe County, however, remains one of the hardest hit areas in the United States during the recent economic recession, with unemployment rates recently reaching 16%. *See* Decl. Ex. 1 at 6-9, 19 for more information on operations at the Monroe Power Plant and its economic impacts on the State.

5. As a regulated public utility under the jurisdiction of the Michigan Public Service Commission ("MPSC"), Detroit Edison has a number of obligations. Among these obligations is the duty to maintain an adequate supply of generating capacity so that electricity is available upon demand at reasonable cost. A critical and necessary component of meeting that demand is the safe, reliable and continued operation of Monroe Unit 2. The Monroe Power Plant has a capacity of 3,135 MWs and generates about 16-20 million MWhrs (net) per year. Monroe Unit 2 is a 795 MW unit that alone is responsible for serving over one hundred thousand residential customers and businesses in southeast Michigan. Given the significant economic constraints facing our region, Detroit Edison is particularly cognizant of any impacts from rate increases on its customers.

6. While providing this safe and reliable electricity at a reasonable cost, Detroit Edison also has substantially decreased its emissions, including of sulfur dioxide ("SO_2"), oxides of nitrogen ("NO_x"), and particulate matter ("PM") over the years, and is currently decreasing them at an accelerated pace. Figure 1 below shows the reductions in SO_2, NO_x and PM system-wide at Detroit Edison over the last 35 years, which shows that emissions are in fact at historical lows.

7. At the Monroe plant in particular, from the installation of the first low-NO_x burners ("LNB") retrofits in the mid-1990s through 2009, Detroit Edison has reduced annual NO_x emissions by 79%. SO_2 emissions have been reduced by 69% since a fuel blending project to facilitate increased consumption of low sulfur western coal was completed in 1982 and through the recent operation of Flue Gas Desulfurization ("FGD") systems at Unit 3 and Unit 4. Figure 2 is a chart of annual SO_2 and NO_x emissions from the Monroe plant from 1974-2009.

Figure 1: System-wide Historic Emission Reductions

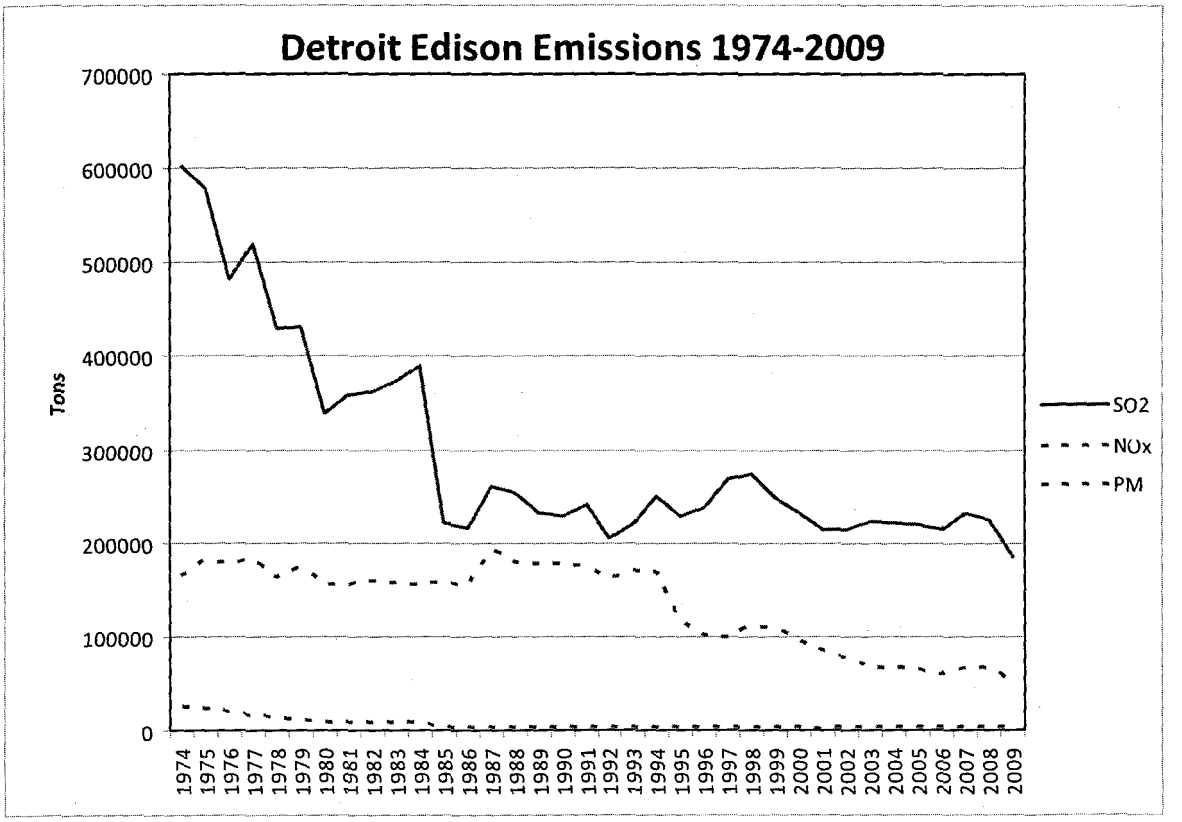
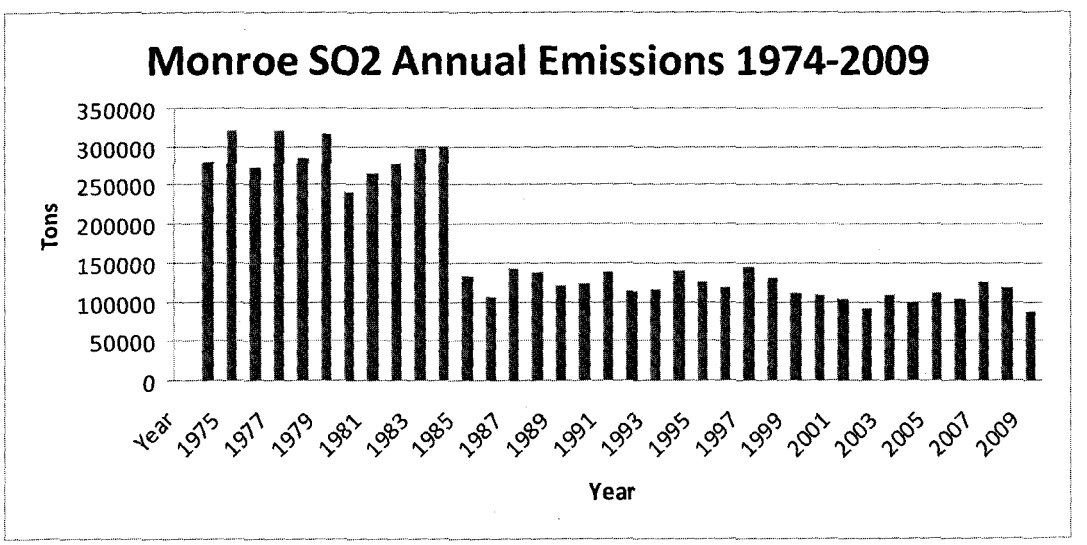
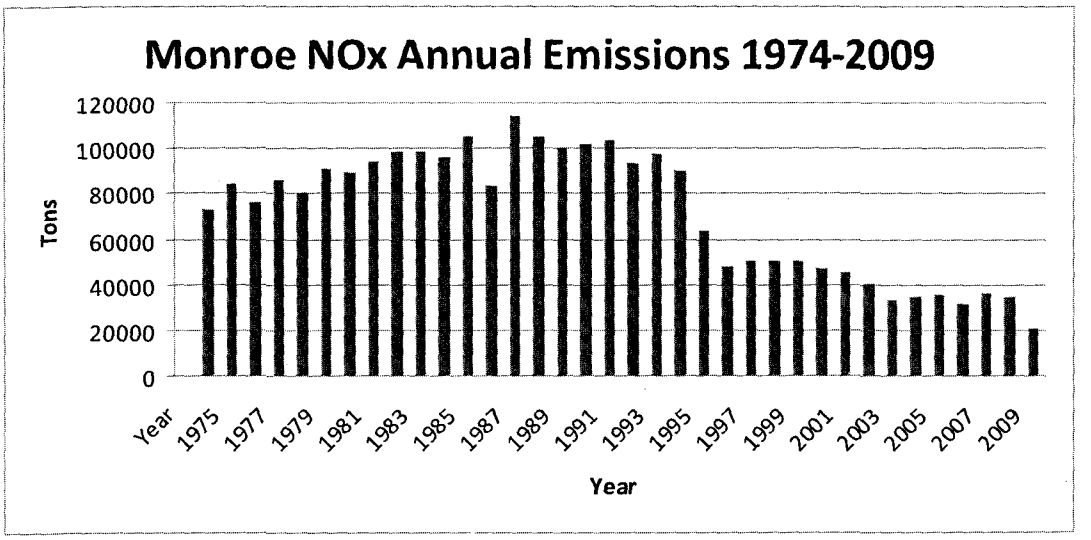


Figure 2 - Annual SO_2 and NO_x Emissions from Monroe 1974-2009





8. More recently, Detroit Edison has embarked on a $2 billion program to install advanced SO_2 and NO_x controls at Monroe. In 2005-2006, Detroit Edison installed more advanced second generation LNBs on Monroe Units 1-4 (the first generation LNBs were installed in the mid-1990s). Following several years of construction, Detroit Edison started operating Selective Catalytic Reduction ("SCR") systems to reduce further NO_x emissions. Operation of SCRs began on Monroe Units 1 and 4 in 2003 and on Unit 3 in 2007. FGD systems to reduce further SO_2 emissions began to operate at Monroe Units 3 and 4 in 2009. Construction work has already started on FGDs for Monroe Units 1 and 2, with planned final systems tie-in and commercial operation in 2014 for Unit 2. Detroit Edison also plans to start construction on the Unit 2 SCR in 2011, with completion and start-up in 2014. Given site constraints and other controls being constructed at the Monroe Plant, it is not feasible to expedite the installation of the FGD and SCR control systems planned for installation at Monroe Unit 2. *See* Decl. Ex. 1 at 7, 9-10, 12-18 for more information on these controls, their location and operation.

9. When the Monroe Power Plant's emissions control plan is complete, all four Monroe units will be operating with LNBs, SCRs, and FGDs, creating one of the cleanest and most efficient coal-fired power plants in the country. Indeed, due to these recently installed advanced controls, emissions for the Monroe Plant as a whole will be substantially less in 2010 than they ever were in the past, and will be substantially reduced even further with the completion of the latest projects through 2014. Figure 3 below is a schematic of the past and currently planned FGD and SCR projects at Monroe to control emissions. Figure 4 is a diagram of the Monroe Power Plant gas path, showing how SCRs and FGD systems fit within the process.

Figure 3: Schematic of Monroe Environmental Projects

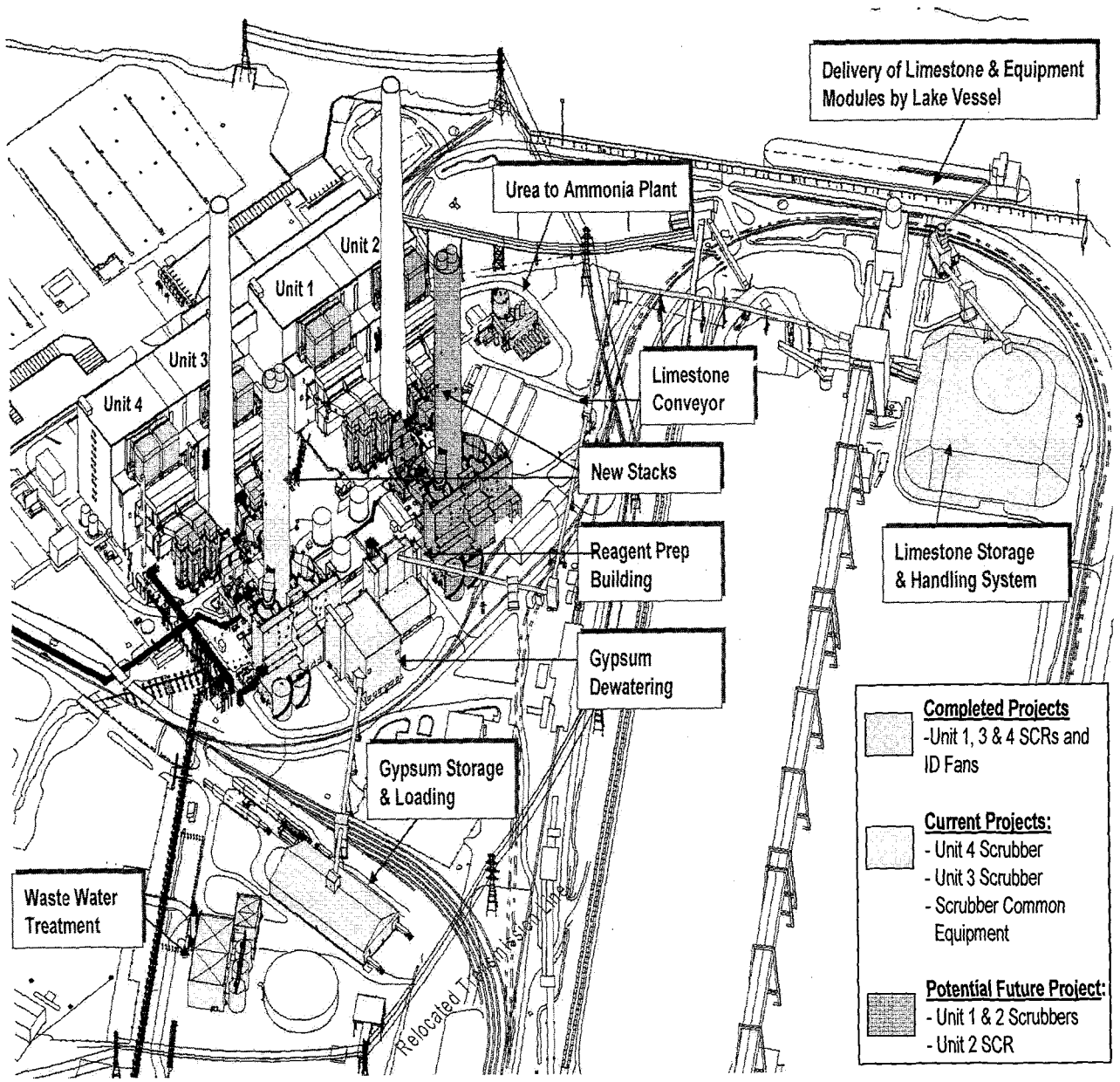
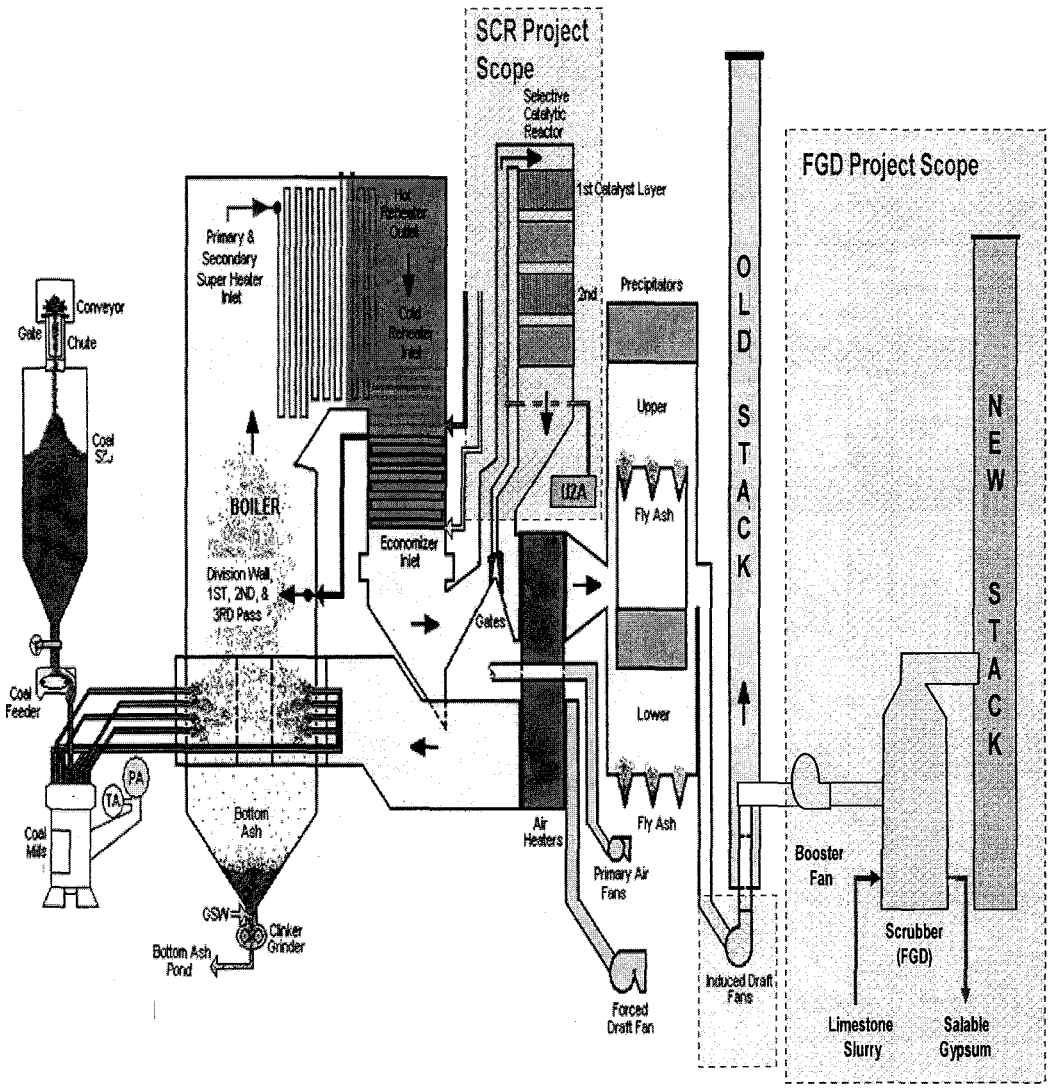


Figure 4: Diagram of Monroe Power Plant - Gas Path



10. Detroit Edison has a long history of air permitting, having first secured an air permit to allow construction of the Monroe Power Plant in 1968. Over the years, Detroit Edison has permitted all its LNB projects, its SCR systems and a variety of other small construction projects. In cases where questions have arisen over the applicability of Michigan or Federal air permit requirements, the Company has asked the regulatory agencies for guidance. For example,

when the plant was afforded the opportunity to replace its existing turbines with newer, more efficient "dense pack" turbines, Detroit Edison engaged in discussions with the permitting authorities and ultimately filed a request for an applicability determination with EPA on June 8, 1999. Detroit Edison received a response on May 23, 2000, which ultimately indicated that no New Source Review ("NSR") permit was required if no emissions increase occurred as a result of the project.[1] It also advised the Company to report emissions to the then-named Michigan Department of Environmental Quality showing that no emissions increase occurred as a result of the dense pack turbines. Detroit Edison filed an initial notification for each of the four turbine upgrades and each major periodic outage since the NSR reform rules went into effect in 2003. In addition, when filing these notifications and the associated annual reports, guidance related to emissions increase evaluation provided in the Monroe applicability determination has been followed as well as the applicable rules.

11. Detroit Edison applied for, and received on August 2, 2010, a NSR Prevention of Significant Deterioration ("PSD") permit for its fuel optimization and air quality improvement project at Monroe Units 3 and 4, agreeing to take on strict Best Available Control Technology ("BACT")-level limits for NSR pollutants from those sources. In issuing this permit, the Michigan Department of Natural Resources & Environment ("MDNRE") analyzed the environmental impact of all four Monroe Units, including Unit 2, each operating at its full potential to emit (*i.e.*, assuming operations at full capacity 8,760 hours per year), and found that those operations would continue to comply with the applicable National Ambient Air Quality

[1] In the Monroe applicability determination, EPA also took the position that the project was not "routine maintenance, repair and replacement" based on an interpretation of that phrase that is completely inconsistent with how it had ever been applied previously. Detroit Edison did not challenge the determination because the ultimate conclusion of the determination was that the project as planned could proceed without NSR permitting.

Standards ("NAAQS"). In addition, MDNRE conducted a thorough BACT evaluation and approved the following BACT limits for NO_x and SO_2 (in addition to other pollutants) for the two Monroe units: 0.107lb/mmBtu for SO_2 (30-day rolling average); 0.08lb/mmBtu for NOx 12-month rolling average).

C. The Monroe Unit 2 Project Work

12. As Vice President of Environmental Management and Resources, I am familiar with the purpose of the recent maintenance and repair work at Monroe Unit 2 ("Unit 2 Project"), which I understand is at issue in this litigation. In particular, a coal-fired boiler is a complex assembly of tubes, tube components, and ancillary equipment (*e.g.*, pumps, burners, fans, economizers, reheaters and superheaters) in which water is heated and turned to steam, which then turns a turbine to generate electricity. Because Detroit Edison's facilities are subject to harsh operating conditions, including high temperatures and pressures, and must be available to provide electricity on demand, Detroit Edison frequently repairs and replaces deteriorating tubes and related components. Like every other electric utility company in the country, Detroit Edison regularly performs maintenance, repair and replacement activities to ensure its units run efficiently and safely and with minimal interruption of service and without injury to its workforce. To perform these activities, Detroit Edison, like every electric utility company in the country, periodically removes its generating units from service for up to three months to perform maintenance work, which cannot otherwise be completed while the unit is in operation (*i.e.*, an outage). This maintenance activity is scheduled to occur during periods when the demand for electricity is less, such as certain periods in the Fall or Spring, so as to avoid the risk of interruption of service to our customers.

13. It is my experience from my years working in the industry that such common maintenance, repair and replacement work does not result in emissions increases. Rather, fluctuations in the utilization of the unit and its resultant emissions (both before and after the project), including any increases projected to occur in the years following these types of projects, are usually due to a multitude of factors independent from the project, such as increased demand for the unit, variability in fuel or in emissions control equipment, and other system and market conditions. This was, in fact, the conclusion Detroit Edison reached regarding the Unit 2 Project.

14. To my knowledge, no utility company has ever considered such maintenance, repair and replacement projects to be subject to NSR, much less obtained an NSR permit for such work. Indeed, were such projects to require an NSR permit and installation of BACT as a matter of course, no rational company (including Detroit Edison) would undertake such work, because the costs of the permit process and installation of BACT would generally make such a maintenance project extremely uneconomical (unless such controls were being installed for other reasons). It took over two years to obtain the previously-referenced NSR permit for Monroe Units 3 and 4, which would be unworkable if Detroit Edison had to obtain similar permits for each of its periodic outages. In fact, there would be other less costly, lawful options available to Detroit Edison to avoid triggering NSR permitting by ensuring there would be no significant emissions increase due to such a project. Options include (1) implementing administrative and other constraints on the unit as a part of the project to offset any potential increase otherwise associated with the projects; (2) securing a "synthetic minor" permit, which would keep emissions at baseline plus a significance threshold; and (3) "netting" emissions using contemporaneous reductions at the plant. Moreover, because Detroit Edison was planning to install advanced emission controls on Monroe Unit 2 in the near future, it may have chosen to

simply postpone the maintenance work until it was ready to proceed with the pollution controls and the permitting for those controls.

D. NSR Notification Policy and Notification of the Unit 2 Project

15. Before commencing work involving a major planned outage at a Detroit Edison facility, such as Monroe, Detroit Edison submits a detailed planned outage notification to the MDNRE. The information included in these notifications is based on meetings with MDNRE and are regularly submitted to the agency for outages at the plant in accordance with the applicable regulations and with Detroit Edison's conservative policy of notifying the State of a planned outage even if it believes there is "no reasonable possibility" that activities during a planned outage trigger the requirement for an NSR permit.[2] These notifications explain the scope and purpose of the project, the length of the particular outage, whether the project will result in any significant increase of emissions from the unit, and whether or not Detroit Edison believes the project triggers any permitting obligations under the Clean Air Act and/or Michigan's State Implementation Plan ("SIP"), which govern certain air emission sources within the State, including Monroe Unit 2. Detroit Edison regularly communicates with the MDNRE, and MDNRE was aware of the Monroe Unit 2 Project before the final submission. With regard to this work, Detroit Edison creates and maintains the information required by Mich. Admin. Code R. 336.2818(3)(C), and has provided that information to EPA when requested.

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[2] The rules require pre-project notifications for electric utilities for projects where there is a "reasonable possibility" of a significant emissions increase that is not part of a major modification. Out of an abundance of caution, and in the interest of transparency and open communications with the permitting authority, Detroit Edison in 2003 adopted a conservative policy of submitting such notifications for any "planned outage" including at least one capital project with an estimated cost of $250,000 or more, regardless of whether the work is considered

16. I disagree with the statement made by EPA's Ethan Chatfield in his declaration regarding a September 14, 2009 meeting where EPA and Detroit Edison discussed a broader Notice of Violation that EPA had issued to the Company on July 24, 2009 ("2009 NOV"). I attended the meeting along with others from Detroit Edison and our counsel. According to Chatfield, EPA attorney Sabrina Argentieri explained that EPA generally disagreed with Detroit Edison's analyses of NSR applicability in its notification letters and invited William Brownell, counsel for Detroit Edison, "multiple times" to contact her to discuss in detail why EPA disagreed with the analyses. Declaration of Ethan Chatfield, ¶¶ 25-26. My recollection of the meeting is exactly the opposite. Mr. Brownell explained that the Company's purpose for submitting these notification letters and analyses to MDNRE, even for projects that the Company believes do not require them in the first place, is to go above and beyond what is required for compliance. Mr. Brownell then specifically asked EPA and Ms. Argentieri to explain why they did not believe Detroit Edison's NSR analyses were correct, so that the Company could adjust its notifications as appropriate. He received no specific response at the meeting, nor to my knowledge, has he or the Company ever received such a response from Ms. Argentieri or any other EPA staff. Instead, Ms. Argentieri stated that the purpose of the meeting was to discuss settlement and not to address the merits of any claims in the 2009 NOV or the Company's notifications. She added that it might be possible to have discussions regarding notifications on a "parallel track" to settlement discussions, but that she would have to discuss the issue with other EPA personnel first to determine whether that is possible. Ms. Argentieri has never contacted Detroit Edison or its counsel about such "parallel track" discussions.

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routine maintenance, repair and replacement or has a reasonable possibility of increasing emissions.

17. With respect to the work at Monroe Unit 2, which involved primarily economizer, reheater and waterwall replacements, Detroit Edison sent such an outage notification to MDNRE before the work began, and explained why these activities (1) constituted routine maintenance, repair and replacement under EPA's historic and Michigan's interpretation of that term; and (2) would not result in a significant emissions increase. For these two independent reasons, Detroit Edison further explained that the work did not trigger any permitting obligations under the Clean Air Act and/or Michigan's SIP. With respect to the emissions increase analysis, Detroit Edison explained that it relied on the Company's projections that had been recently submitted to the MPSC as a part of the Company's 2010 Power Supply Cost Recovery ("PSCR") filing submitted in September 2009. These projections, which were done using a complex "production cost model" called PROMOD and incorporated system assumptions and predictions, showed that Monroe Unit 2 would be projected to have higher emissions of NO_x and SO_2 in 2013 than in the baseline period As required under the NSR regulations, Detroit Edison then excluded from the projections any emissions increases that are unrelated to the Unit 2 Project (because they are related to the system assumptions in the PROMOD model) and that the unit could have accommodated in the baseline period (because the unit had substantially higher availability in the baseline period than its expected utilization after the Unit 2 Project). *See* Letter from Kelly Guertin, Detroit Edison, to William Presson, MDNRE (Mar. 12, 2010), Decl. Ex. 2 at 2-3 and Table 1; Letter from M. Solo, Detroit Edison, to S. Argentieri, EPA Region 5 (June 1, 2010), Decl. Ex. 3 at 2-5. MDNRE did not question Detroit Edison's determination at the time it received Detroit Edison's notification. Nor has MDNRE questioned it since that time.

18. The work at Monroe Unit 2 commenced on or about March 13, 2010, and concluded on June 20, 2010. Monroe Unit 2 is currently operating and is subject to the Court's order to continue operating at no more than pre-Unit 2 Project levels.

E. Discussions with EPA and Impact of Relief Requested by the Agency

19. In a series of letter exchanges with EPA, Detroit Edison explained further its conclusions with regard to the Monroe Unit 2 work not constituting a "major modification," including the independent factors causing any projected emissions increase and its exclusion of emissions that could have been accommodated prior to the project. *See* Decl. Ex. 3 at 2-5; Letter from M. Solo, Detroit Edison, to M. Palermo, EPA Region 5 (June 23, 2010), Decl. Ex. 4 at 1-4.

20. Nevertheless, on June 4, 2010, EPA issued a formal "Notice and Finding of Violation" ("2010 NOV") to Detroit Edison, claiming that the work at Monroe Unit 2 constituted "major modifications under the [CAA] and the Michigan implementation regulations." During a short telephone call the afternoon of June 16, EPA told Detroit Edison that it was not interested in discussing the legal basis for the 2010 NOV or EPA's position regarding the adequacy of the notification that Detroit Edison had provided to MDNRE before the project. Rather, EPA presented Detroit Edison with its demand for substantial emission reductions at other plants unrelated to the Monroe work and told the Company that it had one week to accept this demand.

21. EPA appears to base much of its 2010 NOV and subsequent Complaint on an article that appeared in the April 22, 2010 edition of a local newspaper entitled "Extreme makeover: Power plant edition." While the article describes the work at Monroe Unit 2 in somewhat expansive terms, it appears to focus mainly on the statements of a contractor,

apparently eager to highlight the jobs that the work created in Michigan, a State which has suffered rising unemployment in the last several years.

22. In light of the parties' ongoing dispute and to alleviate any concern regarding any potential actual emission increases from Monroe Unit 2 during the dispute, Detroit Edison advised EPA that, barring unforeseen emergency circumstances, it would commit to manage the operation of the unit to assure there is no increase in annual emissions from Monroe Unit 2 for any reason, including those specifically allowed by the regulations. *See supra* Decl. Ex. 4 at 4. EPA ignored this commitment and filed its Complaint and Motion for Preliminary Injunction.

23. EPA estimates that the interim remedy it has asked for would cost about $39 million in additional capital and $14 million in annual operating costs, and it further states that this amount is "minimal" when compared to Detroit Edison's current plans to spend $630 million on new control retrofits at Monroe Unit 2. EPA's declarants have substantially underestimated the costs of their proposed "interim" remedy. *See* Declaration of William C. Rogers. But even if the cost to Detroit Edison were $39 million only (excluding the additional $14 million that EPA claims as operating costs), it would comprise capital outlays that would have to be raised in addition to the capital that Detroit Edison must obtain to fund its $2 billion control equipment construction plan and to maintain the system to provide reliable electric service at the lowest, prudent cost to Michigan ratepayers. This *additional* capital is not a small amount of capital to raise at this time, especially in the current economic climate and given the many millions of dollars in additional annual operating costs associated with running such controls at other plants.

24. Detroit Edison estimates that the charges related to the latest portion of its existing $2 billion emissions controls construction at Monroe and other required maintenance

expenditures will require it to raise its rates and this is occurring during a time that our customers have considerable challenges paying current rates. MPSC is focused on limiting the amount of rate increases when possible to manage customer affordability. An additional charge of $39 million for interim controls that EPA now seeks from this Court would represent a further and unnecessary increase in rates, with an additional amount borne by Detroit Edison if that cannot be passed through to its customers. The rate increase likely would be substantially more, because EPA's declarants have substantially underestimated the cost of operating such controls. Therefore, EPA's requested relief would impose significant costs on Detroit Edison's consumers and the Company itself.

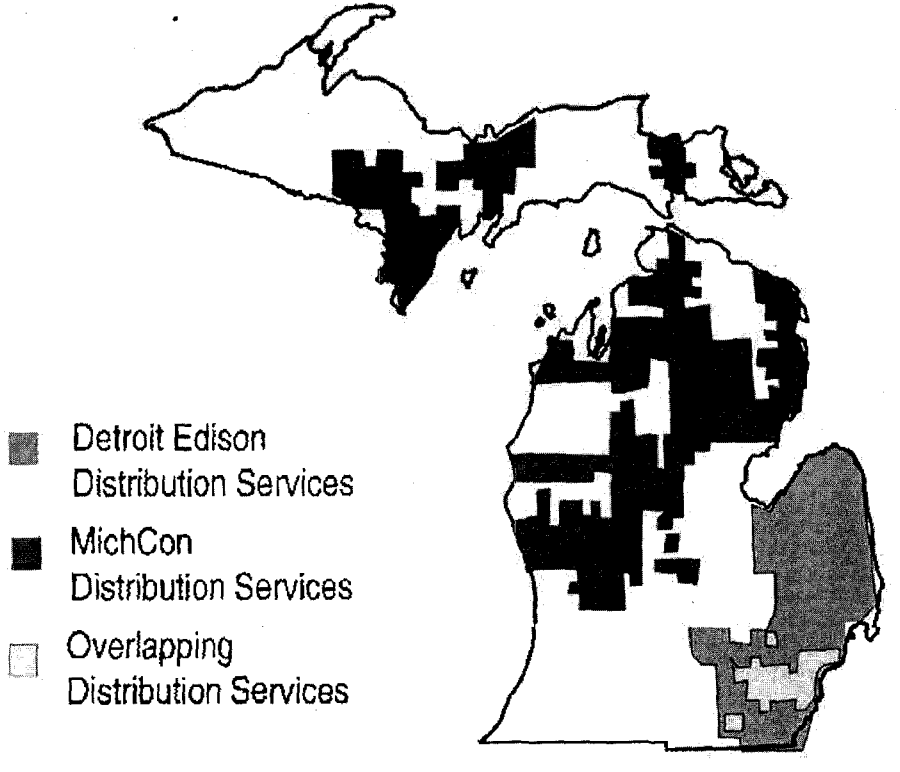
I declare under penalty of perjury that the foregoing is true and correct.

Executed this 3rd day of November, 2010.

Skiles W. Boyd

Boyd Declaration Exhibit 1: Information on Detroit Edison's Power Plants and the Monroe Power Plant

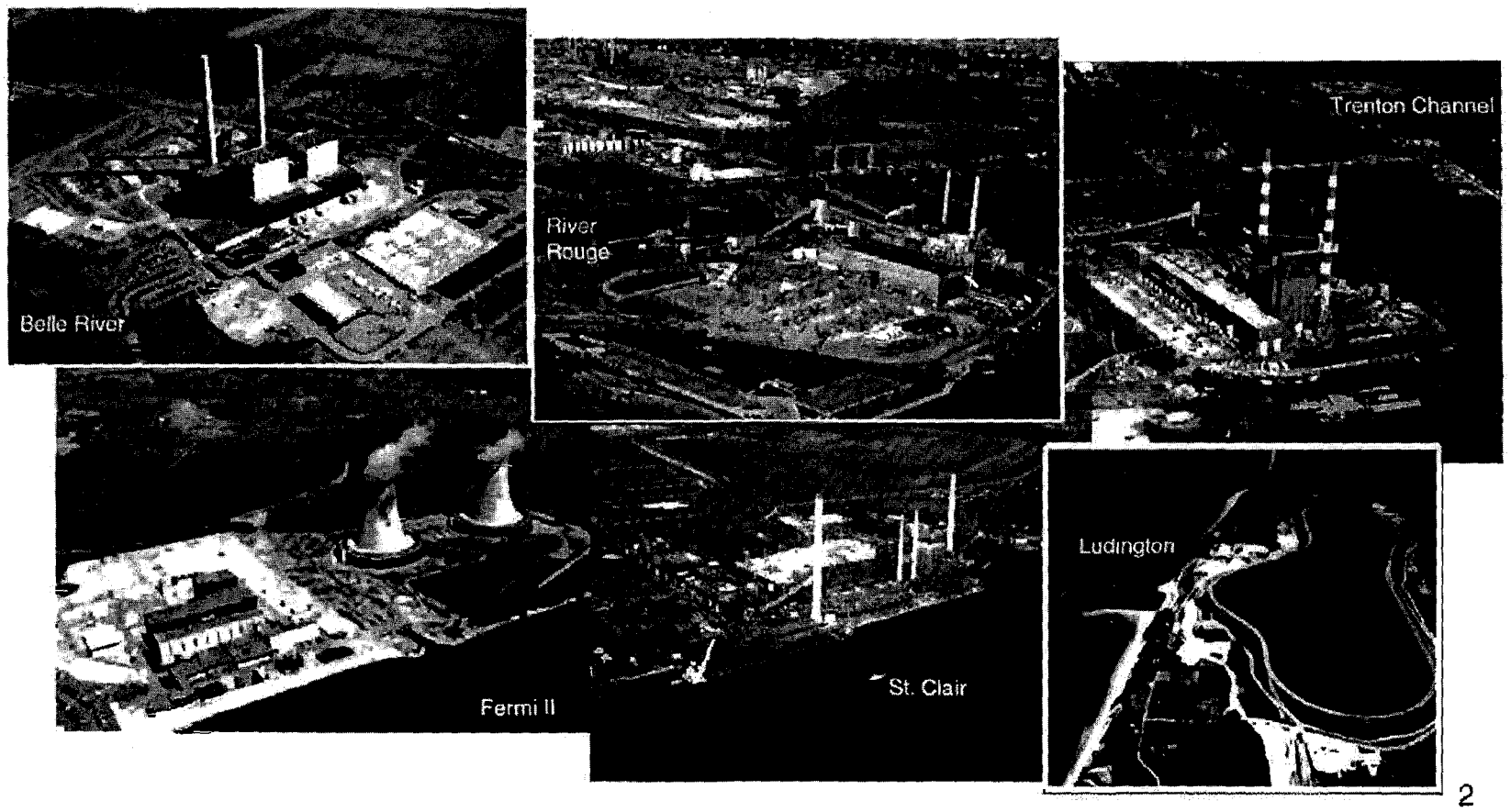
Detroit Edison General Information and Service Areas



Detroit Edison

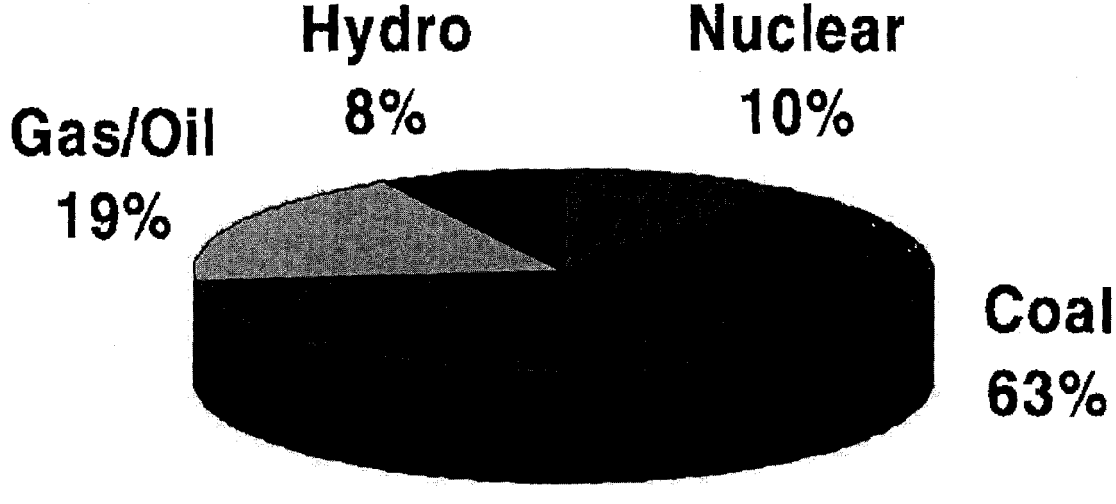
- Founded in 1903
- Ninth largest electric utility in the U.S. with 2.1 million customers
- Over 11,000 MW of power generation, primarily coal fired
- Fermi 2 nuclear plant is a top industry performer
- 54,000 GWh in electric sales
- *~$4.7 billion in revenue*

Some of Detroit Energy's Generation Facilities



Detroit Edison's Eleven Major Power Plant Facilities

Detroit Edison's Generation Portfolio – Type of Fuel

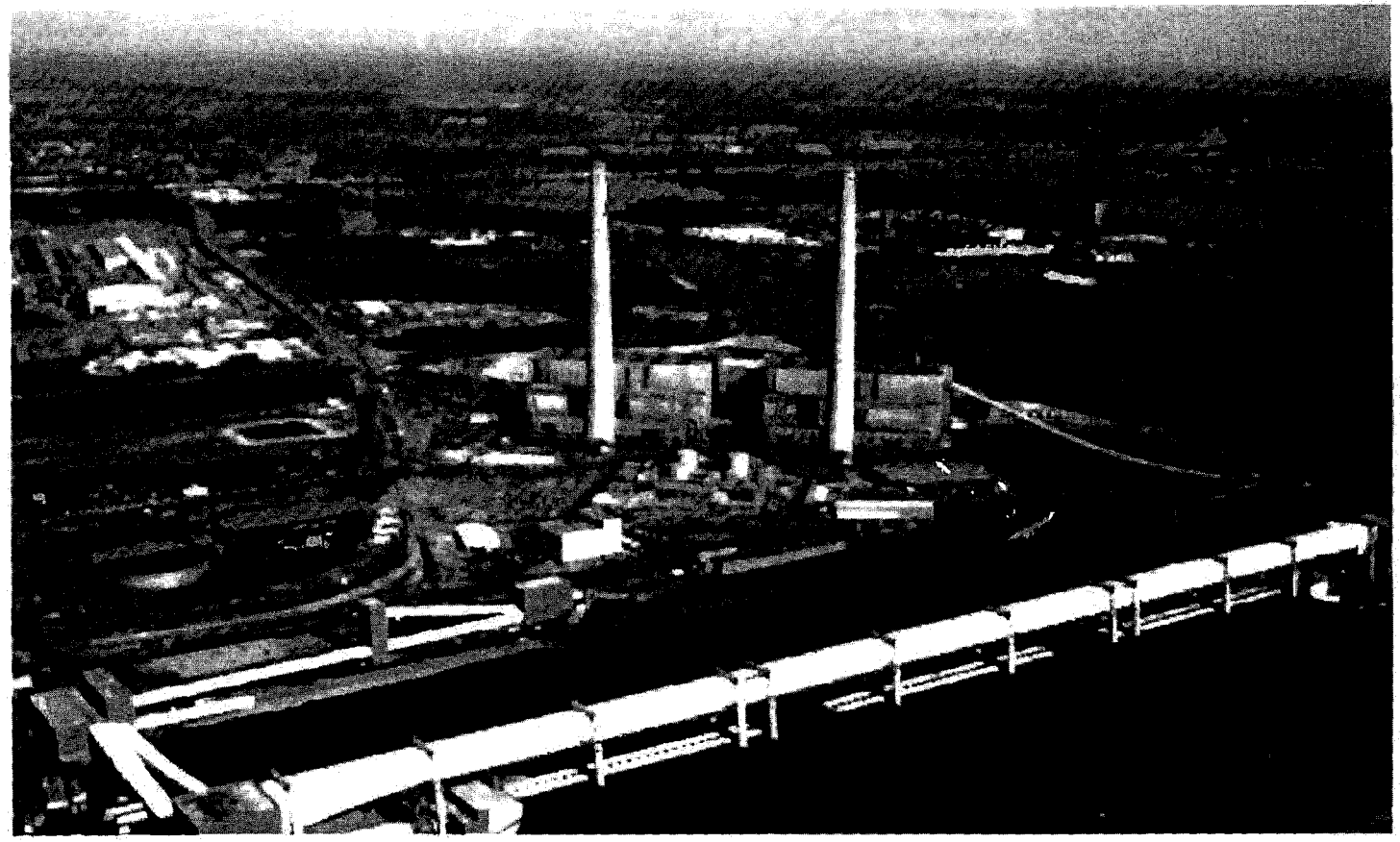


Coal is the primary fuel utilized by DTE Energy's Generation fleet

Detroit Edison's Variable Generation Fleet Capacities

Plant Location	Capacity MW	% of Total Generation	# Units	First Generating in	Employees
Monroe	3,135	35%	4	Early 70's	470
Fermi II	1,131	16%	1	1988	930
Belle River	1,026	15%	2	1984	232
St. Clair	1,402	13%	6	Early 50's	409
Trenton Channel	725	9%	3	1949	213
Ludington	917	6%	6	1967	
River Rouge	527	5%	2	1956	75
Greenwood	785	1%	1	1979	69
Harbor Beach	103	>1%	1	1968	22
Connors Creek	215	>1%	2	1958	30

The Monroe Power Plant



History of the Monroe Power Plant

- **Design started in 1966**
- **Unit 1 went into service in 1971, and Unit 4 in 1974 with all 4 units currently operating Monroe Power Plant generates about 3,335 MWhrs**
- **The Fuels and Emissions Project started in the 1970's, to comply with the Clean Air Act: this lead to the installation of the largest Fuel Blending Systems in the country, including**
  - **Blending facilities**
  - **Coal Mills**
  - **Fuel Gas Conditioning**
- **In 1994, started the installation of LoNOx burners**
- **In 2002, started in service testing of the Selective Catalytic Reduction (SCR) unit, on Unit 1 and currently Units 1, 3 & 4 are operating with SCRs.**

Unique Features of the Monroe Power Plant

- Located on 1,200 acre site and it is the largest generating plant in the State of Michigan and the 5th in the country.
- Monroe Power Plant produces about 35% of DTE Energy's electrical power and 44% of Fossil Power.
- With more than 400 permanent employees and 100 long term contract employees, along with 500-800 temporary construction employees for the Environmental Project, Monroe is one of the largest employers and taxpayers in Monroe County
- At full load the plant will consume 32,000 tons of coal per day and on a average year the plant will burn 8 - 9 million tons of coal.
- Monroe Power Plant has a capacity of 3,135 MWs or 3,135,000 kilowatts
- The plant generates about 16 – 18 million MWs per year

Monroe's Fuel Blending System

- **Can blend three types of coal to optimize output**
  - **Low Sulfur – Western**
  - **Low Sulfur – Southern**
  - **Mid Sulfur – Eastern**
- **Receives 8 – 9 million tons of coal per year via Rail and Vessel**
- **Over 10 miles of conveyors**
- **Average train is 120 cars each carrying 100 tons of coal**
- **Ships unload 28,000 to 40,000 tons depending on river depth**

Monroe Power Plant Environmental Achievements

- **Reduced SO2 emissions, via Fuel Blending**
- **Reduced NOx emissions via LoNOx Burners**
- **Reduced NOx emissions via SCR**
- **Plant gained Wild Life Habitat in 2001**
  - **As part of this effort, MPP employees have identified 151 species of mammals, reptiles, and birds on site**
  - **9 endangered species of mammals and birds can be found on site, along with one plant species.**
- **Plant was ISO 14001 Certified in 2003**
- **State of Michigan Lotus Blossom Habitat**
- **Past winner of Monroe County Corporate Citizen of the Year**

Detroit Energy's Environmental Stewardship

- 1920s **First utility to install ESPs – Trenton Channel PP**
- 1970s **Ploneered fuel blending – Monroe PP**
- 1980s **Voluntary and accelerated removal of PCB equipment**
- 1990s – 2006
  - **DOE Climate Challenge Program – planted 23+ million trees in Michigan, increased system efficiencies, biomass development, etc.**
  - **ISO 14001- All 8 major power plants**
  - **Clean Corporate Citizen – Fermi 2 certified**
  - **Wildlife Habitat Council member – 9 sites certified**
  - **Award-winning partner in Greenways trails development, wildlife research and organizational support**
  - **Green Team (employee environmental volunteers) works on company property and in the communities we serve**

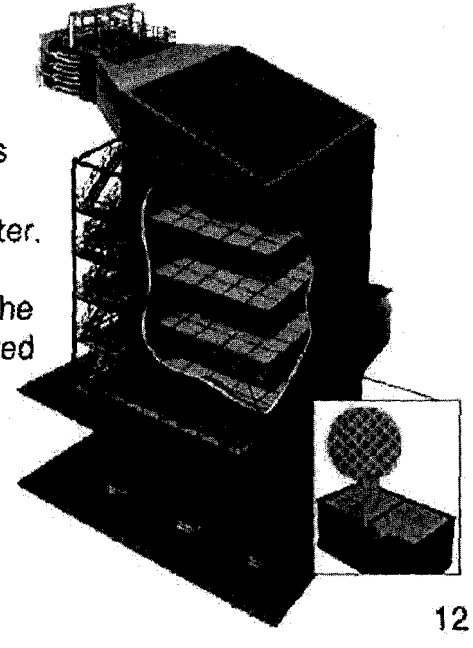
SCR Installation Helps Reduce Majority of NO_x Emissions

Nitrogen Oxides (NO_x)

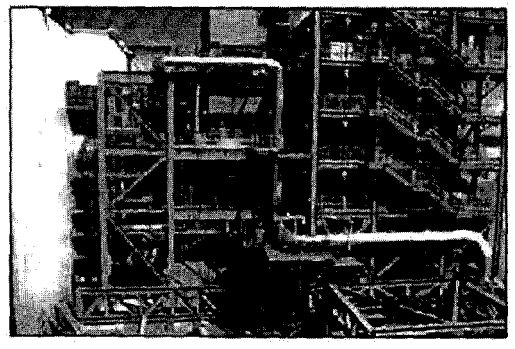
NO_x emissions from fossil fuel-fired boilers arise from the nitrogen compounds in the fuel and molecular nitrogen in the air supplied for combustion. Conversion of molecular and fuel nitrogen into NO_x is promoted by high temperatures and high volumetric heat release rates found in boilers. NO_x, along with emissions from other sources like volatile organic compounds from cars, have been identified as precursors to ozone and fine particulate (PM2.5) which has been associated with respiratory disorders, corrosion and degradation of materials and damage to vegetation.

Selective Catalytic Reduction (SCR)

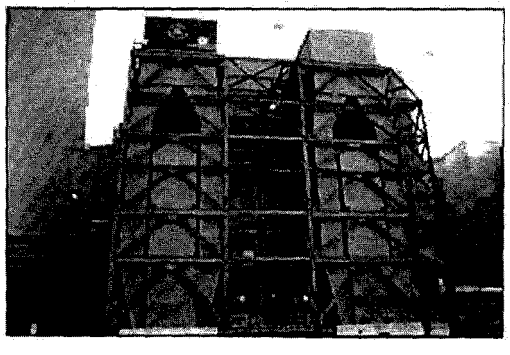
- Controls **90%+** of **NO_x** Emissions
- *One Monroe SCR will control* **18%** *of the forecasted* fleet **NO_x** emissions
- Installed in high temperature flue gas stream after the boiler
- Ammonia in the presence of a catalyst converts NO_x to inert nitrogen and water. Periodic replacement of the catalyst is required



Monroe SCR Project



Unit 3 SCR, Complete



Unit 3 ID Fans, Complete

- Major retrofit effort in a very congested area significantly impacts cost
- Existing design of boilers and auxiliaries has led to additional scope not experienced at most plants retrofitting SCR's
- More than 7,000 tons of structural steel and ductwork added to back of each unit
- Performing most of the work with units on-line, with tie-ins during scheduled outages
- >3.5 million local labor man-hours employed on U1, U3, U4 & U2A to date
- Major strategy change on Unit 3 SCR employed the delivery of large pre-fabricated duct modules by barge
- Approximately $839 million spent on SCRs and U2A

SO_2 Emissions Are Reduced by Installing Scrubbers

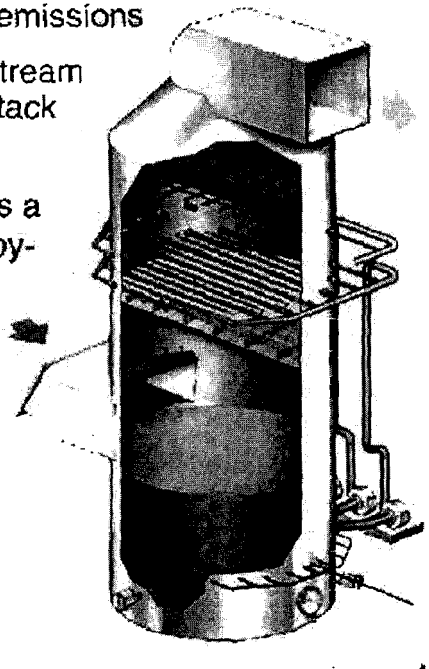
Sulfur Dioxide (SO_2)

The burning of coal fossil fuels causes sulfur dioxide (SO_2) to be emitted into the atmosphere. SO_2 emissions form atmospheric sulfates which are a contributor to PM2.5. When gaseous SO_2 combines with water, it forms a dilute aqueous solution of sulfurous acid. Sulfurous acid can easily oxidize in the atmosphere to form sulfuric acid (H_2SO_4). Dilute sulfuric acid is a major constituent of acid rain.

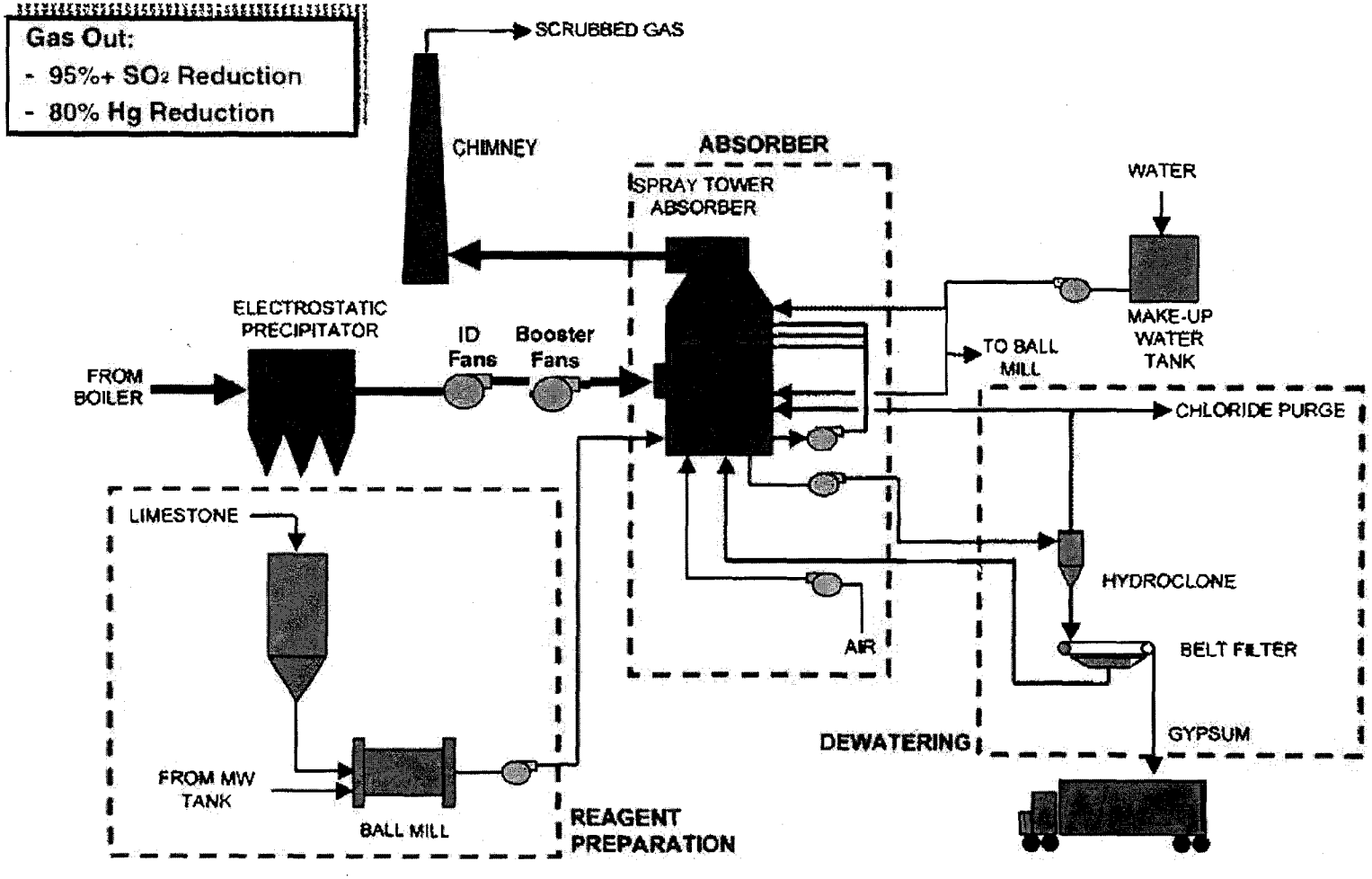
Flue Gas Desulfurization (FGD)

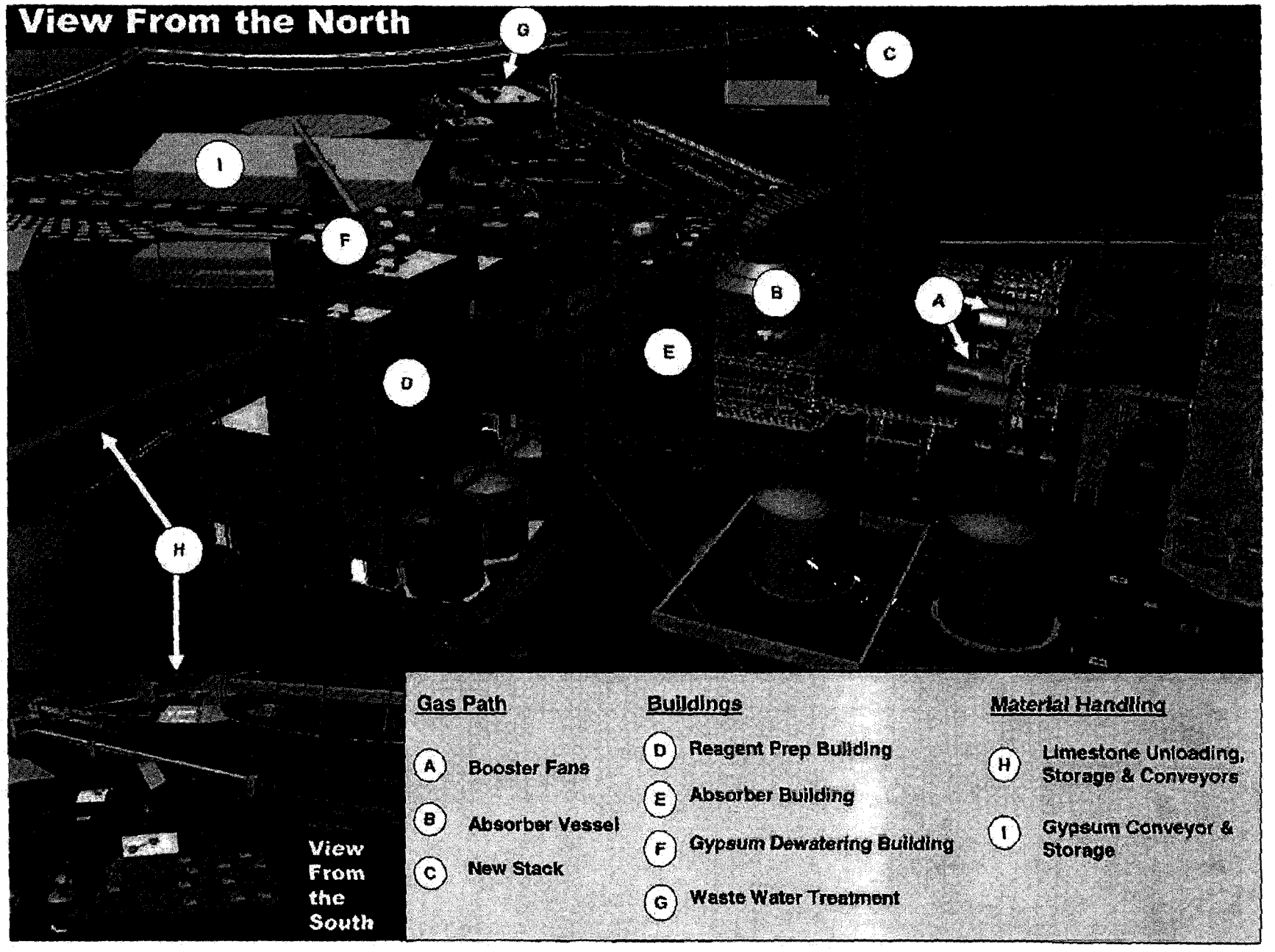
Commonly referred to as a Scrubber

- Controls **95%+** of **SO_2** Emissions
- One Monroe FGD will control **12%** of the forecasted fleet **SO_2** emissions
- Installed in flue gas stream immediately before stack
- Uses limestone as a reagent and produces a marketable gypsum by-product
- 85% of installed SO_2 scrubbers are wet scrubbers, the balance are dry scrubbers



Scrubber Process

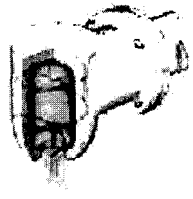



View From the North
G
C
I
F
B
A
E
D
H
View From the South
Gas Path
A Booster Fans
B Absorber Vessel
C New Stack
Buildings
D Reagent Prep Building
E Absorber Building
F Gypsum Dewatering Building
G Waste Water Treatment
Material Handling
H Limestone Unloading, Storage & Conveyors
I Gypsum Conveyor & Storage

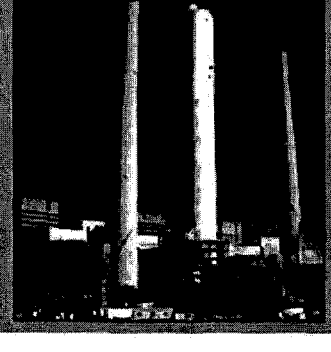
Installation of Scrubbers Will Change the Appearance of Monroe's Plume

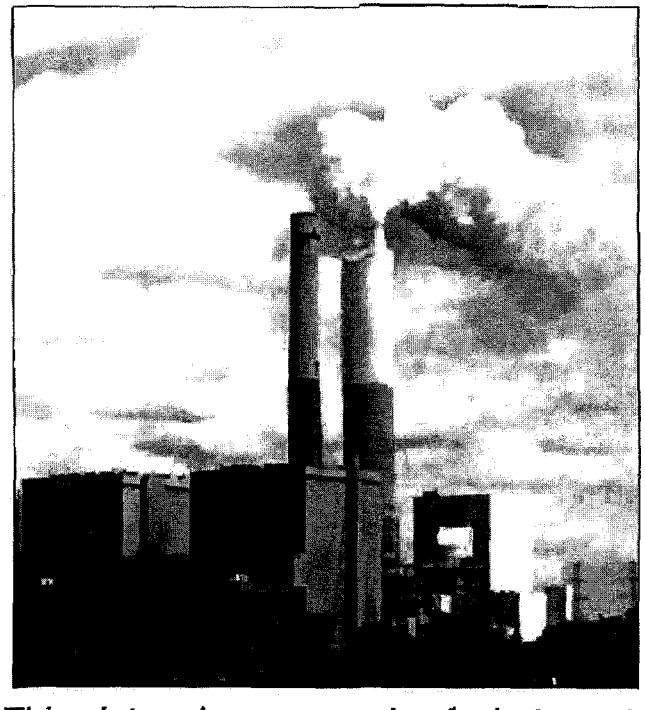
Saturated Flue Gas

The Flue Gas Desulfurization process is a wet process. The limestone that reacts with the SO_2 is made into a slurry and sprayed into the flue gas's path. During this process Water evaporates. This moisture will be visible as the flue gas exits the new chimney.



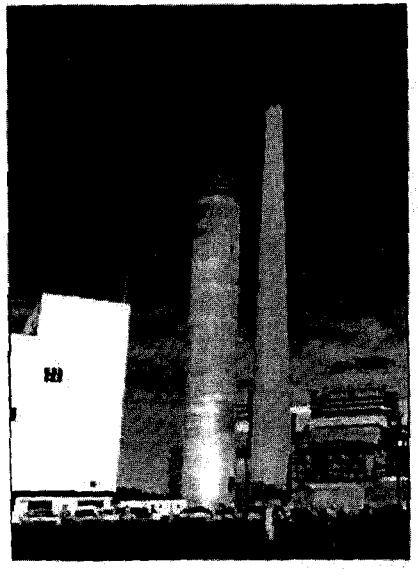
This change in flue gas characteristics is the reason a new chimney is required as part of the Monroe scrubber project





This picture is an example of what a water saturated plume looks like. A wet-scrubber similar to the one being built at Monroe is installed on this power plant

Monroe Flue Gas Desulfurization Project



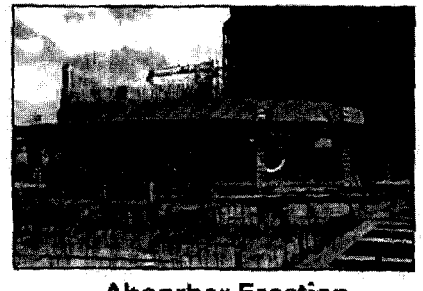
New Chimney

- Erected new emissions stack with two FRP flue gas liners (one per unit)
- Once operational, continuous vapor plume from FGD operation will be visibly different than current stack emissions
- Erect material handling systems for limestone receipt via barge and commercial-grade gypsum by-product removal via truck
  - Barge and truck traffic to MPP will increase significantly once operational
- Erection of significant increase in rotating equipment and process control
  - Essentially adding chemical processing plant equipment comparable to a power plant in size/complexity without added benefit of a turbine-generator
- Relocation of the 345 KV high-voltage transmission line within Monroe Power Plant property
- The scrubber technology chosen has been proven in both national and world-wide utility marketplaces
- Approximately $1.2 billion estimated on four scrubbers and common equipment at Monroe

Liner Installation

Reagent Prep

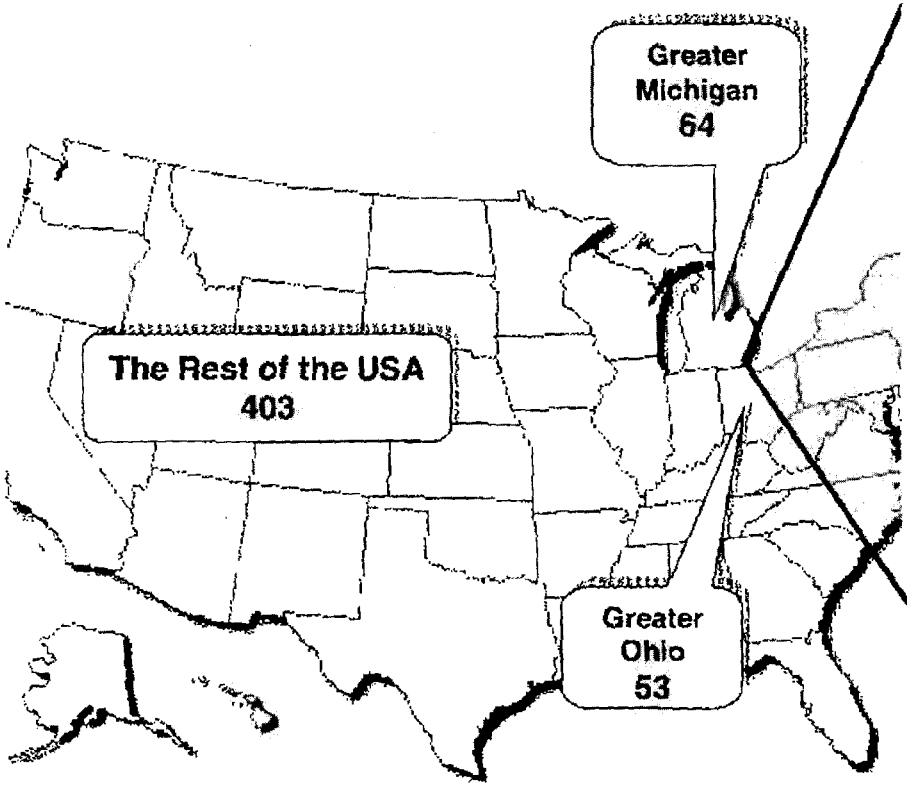
Stebbins Tile



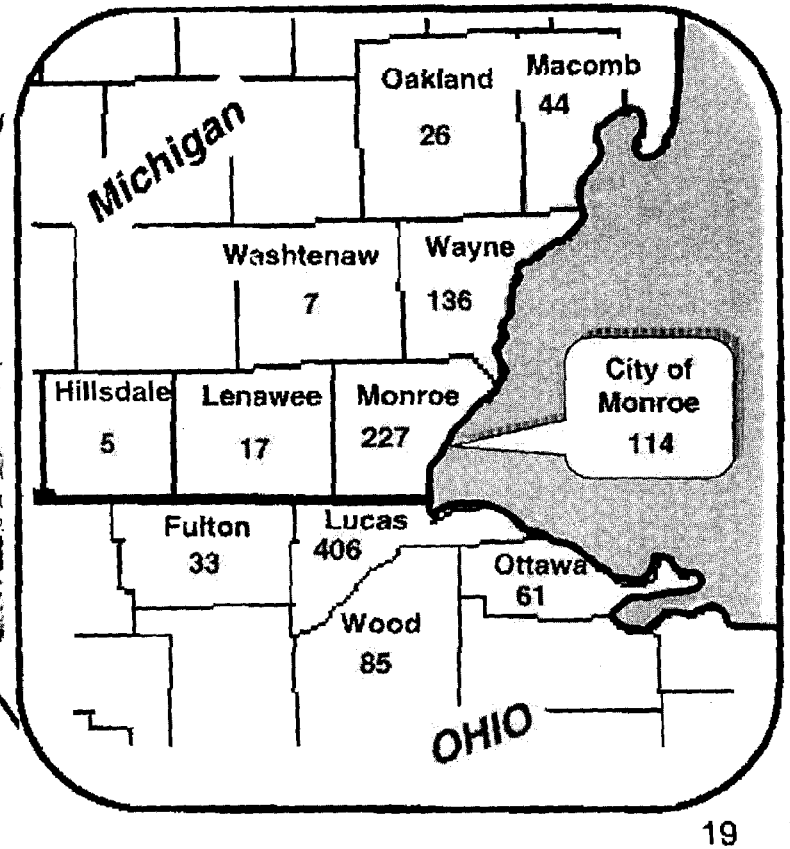
Absorber Erection

Economic Impact of Environmental Projects at Monroe

Contract Employees who have worked on the Monroe Projects



Local Counties



Boyd Declaration Exhibit 2: March 12, 2010 Planned Outage Notification

DTE Energy Company
One Energy Plaza, Detroit, MI 48226-1221

DTE Energy

VIA CERTIFIED MAIL

March 12, 2010

Mr. William Presson, Acting Section Supervisor
Permit Section
Air Quality Division
Michigan Department of Environmental Quality
525 W. Allegan
Constitution Hall - 3rd Floor North Tower
P.O. Box 30260
Lansing, MI 48933

Re: **2010 Planned Outage Notification - Monroe Power Plant (B2816), Unit 2**

Dear Mr. Presson:

DTE Energy periodically removes its generating units from service for up to three months to perform maintenance, repair, and replacement activities that cannot otherwise be done with the unit in operation. Typically, this occurs on a 2-3 year cycle. Occasionally a unit is taken out of service for a planned shorter duration to perform less extensive work. During the upcoming twelve (12) week outage at the Monroe Power Plant on Unit 2 that begins on or about March 13, 2010, the following major projects are being undertaken: (1) boiler system repairs and replacements; (2) turbine repairs and replacement; (3) electrical repairs and replacement; and (4) draft system repairs and replacement. These project are exempt under Michigan air rules and no permitting activity is required (see Attachment A). In the electric utility industry, these projects represent routine maintenance, repair and replacement activities.

We are providing notice that these projects are taking place based on the recently promulgated Michigan Prevention of Significant Deterioration (PSD) rules [R336.2801-2830] that became effective on December 4, 2006. Prior planned outage notifications were submitted under the federal New Source Review (NSR) rules promulgated on December 31, 2002 and that became effective in Michigan on March 3, 2003 (the 2002 rules). The 2002 rules required notification, additional record keeping, and annual reporting whenever *"there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase...."* For the reasons discussed below, DTE Energy continues to believe there is no reasonable possibility that the proposed project will result in a significant emissions increase and thus, the requirements do not apply. However, until USEPA and/or the federal courts provide a clear definition of what constitutes routine maintenance, repair and replacement, DTE Energy will follow the requirements of Michigan Air Rule 1818(3). Accordingly, this outage notification for Monroe Unit 2, and all subsequent outage notifications submitted by DTE Energy will continue to follow the format of prior notifications, even though there is no expected increase in emissions as a result of the planned projects. We continue to believe this notice is not required by federal or state regulations.

The NSR applicability test requires a comparison of past actual and projected emissions. *"Baseline actual emissions"* are defined in Michigan Air Rule (MAR) 1801(b). The baseline period for defining past emissions for Monroe Unit 2 was originally established for the 12 week outage in February 2005 to be the two-year period in calendar years 2000-2001. That baseline is being replaced for this periodic outage. The new baseline is May 2005-April 2007. Net generation and capacity factor data for the new period were obtained from the DTE Energy Power Plant Performance Management (P3M) system records. Particulate emissions were based on fuel characteristics and EPA emission factors. Heat input, sulfur dioxide, and nitrogen oxide emissions were obtained from continuous emission monitoring system (CEMS) data presented in the EPA Annual Acid Rain Scorecard reports. Baseline emissions and other operating characteristics are shown in Table 1.

"Projected actual emissions," as defined in MAR 1801(ll), are also shown in Table 1, along with a comparison of projected and baseline actual emissions. This comparison shows that the projects will not result in an emissions increase. The projected actual emissions in Table 1 were calculated as follows: First, PROMOD projections (production cost model output) were calculated based on the unit's expected post-outage maximum annual utilization during the period 2010-2014 with fuel characteristics similar to the baseline period. The expected post-outage maximum annual utilization (estimated to occur in 2013) was obtained from the PROMOD analysis contained in the 2010 PSCR Annual Report issued on September 10, 2009 as required by the Michigan Public Service Commission. As required under the new rules we then excluded from the PROMOD projections *"...that portion of the unit's emissions following the project that an existing unit could have accommodated ... and that are also unrelated to the particular project," including increases due to demand and market conditions or fuel quality per MAR 1801(ll)(ii)(C).* (See Table 1)

It should be pointed out that emissions and operations fluctuate year-to-year due to market conditions and in any individual year could very well exceed baseline levels. Obviously, since the baseline represents a 2-year average, one of those years was above the baseline and one below. At some point in the future, baseline levels may be exceeded again, but not as a result of this outage. Future unit utilization is also a function of expected electricity market conditions. Many factors influence market demand – weather, availability of other units, transmission limitations, electrical system security, etc. Moreover, fuel quality could change. As mentioned above, the Michigan air rules direct one to exclude from projected actual emissions "...that portion of the unit's emissions following the project that an existing unit could have accommodated ... and that are also unrelated to the particular project," including increases due to demand growth or fuel quality changes per MAR 1801(ll)(ii)(C).

Additionally, Part 18 of the Michigan Air Rules allows an existing utility steam generating unit to use a different baseline period for each pollutant under the definition of "Baseline Actual Emissions" in R336.2801(b)(i)(C) as follows:

> *"(C) For a regulated new source review pollutant, if a project involves multiple emissions units, then only 1 consecutive 24-month period shall be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period may be used for each regulated new source review pollutant." [Emphasis added]*

Accordingly, a pollutant-specific baseline for sulfur dioxide ("SO_2") was chosen as July 2006-June 2008. The pollutant-specific baseline for nitrogen oxides ("NO_X") was chosen to be October 2006-September 2008. The pollutant-specific baseline for particulate matter (PM) was chosen to be January 2008-December 2009.

All of the replacement components are identical or functionally equivalent to the equipment now in service, and they do not change the basic design parameters of Monroe Unit 2, which will continue to meet enforceable emission and operational limitations. Moreover, the Utility Air Regulatory Group (UARG), an organization of which DTE Energy is a member, has submitted to the EPA NSR Docket during prior comment periods a list of repair and replacement activities that utilities must perform to keep electric generating facilities operational.[1] These activities are considered routine in the electric utility industry. Furthermore, MAR 1801(aa)(iii)(A) specifies that routine maintenance, repair and replacement activities are not major modifications. Therefore, Part 18 requirements do not apply to these projects.

If you have questions on this notice, please contact me at (313) 235-4698 or via email at gossiauxk@dteenergy.com or you may contact Mr. Wayne Rugenstein at (313) 235-7023 or via email at ***rugensteinw@dteenergy.com***.

Regards,

Wayne A. Rugenstein for

Kelly L. Guertin
Staff Environmental Engineer
Environmental Management & Resources

Attachments

FILE: MONPP U2 Planned Outage 2010 - NSR Notification.docx

Cc: C. E. Jennings
R. C. Larlham
Scott Miller – AQD Jackson
F. D. Warren

[1] DTE has previously provided to your office a copy of the UARG document as part of the Monroe Unit 1 Planned Maintenance Outage Notification dated January 21, 2004.

ATTACHMENT A

Monroe Power Plant Unit 2 Outage Summary

The following activities will be performed during the outage scheduled to begin on or about March 13, 2010, and are exempt under the Michigan Air Pollution Rules as outlined below:

- **Boiler System Repairs and Replacements** – Replacement of economizer tubes; replacement of reheat pendants; replacement of a section of water wall tubes and burner cells; and boiler tube chemical cleaning with the replacement of 210 valves. These activities are exempt under MAR 285(a).
- **Turbine System Repairs and Replacements** – Rewind MTG rotor; install static exciter; replacement of generator lead box; overhaul of north boiler feed pump turbine & rebuild south boiler feed pump; and install boiler feed pump TSI. These activities are exempt under MAR 285(a).
- **Electrical System Repairs and Replacements** – Replace system service transformer #62; replace 4160V cables from system service transformers; rebuild 9-4160V circuit breakers. These activities are exempt under MAR 285(a).
- **Draft & Fuel Burning Repairs and Replacements** – Replace ten air heater gas side expansion joint. This activity is exempt under MAR 285(a).

Table 1
Monroe Power Plant - Unit 2
Comparison of Actual and Projected Actual Emissions & Operations

Period	Baseline Actual per MAR 1801(b)[1][2]	Pollutant - Specific Baseline Actual Emissions for NO_x per MAR 1801(b)[1][2]	Pollutant - Specific Baseline Actual Emissions for SO_2 per MAR 1801(b)[1][2]	Pollutant - Specific Baseline Actual Emissions for PM per MAR 1801(b)[1][2]	PROMOD Projection per MAR 1802(ll)(ii)(A)[3]	Emissions Excluded per MAR 1802(ll)(ii)(A)[3]	Projected Actual Emissions per MAR 1802(ll)(ii)	Emission Change
	May 2005-April 2007	October 2006-September 2008	July 2006-June 2008	January 2008-December 2009	January 2013-December 2013			
Unit Electrical Capacity, MW	795	795	795	795	795			
Net Generation, MWh	4,983,296				5,748,000			
Annual Capacity Factor	85.5%				82.5%			
Heat Input, mmBtu	47,335,146	44,343,031	45,802,027	43,742,775	54,974,000			
SO2, lb/mmBtu			1.32		1.23			
NOx, lb/mmBtu		0.47			0.53			
PM, lb/mmBtu				0.02	0.02			
SO2, tons			30,115		33,816	3,701	30,115	0
NOx, tons		10,398			14,494	4,096	10,398	0
PM, tons				498	615	117	498	0

Notes:
(1) Michigan Air Rule (MAR)
(2) Baseline values are a 12-month average of a selected 24-month consecutive operating period
(3) PROMOD projections are based on the maximum utilization for the period 2010-2014 as shown in the DTE Energy - Detroit Edison Power Supply Cost Recovery (PSCR) 2010 Annual Report (dated 9-10-09) as required by the Michigan Public Service Commission

FILE: Monroe 2 Notification Data - Table 1.xls
TAB: MONPP U2 NSR Notice 3-2010

Boyd Declaration Exhibit 3: June 1, 2010 Detroit Edison letter to EPA

DTE Energy Company
One Energy Plaza, Detroit, MI 48226-1279

DTE Energy

MICHAEL J. SOLO, JR.
Attorney
(313) 235-9512

June 1, 2010

Sabrina Argentieri
Associate Regional Counsel
U.S. Environmental Protection Agency—Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Request to Provide Information Pursuant to the Clean Air Act
Dated May 28, 2010

To Whom It May Concern:

Enclosed with this letter please find The Detroit Edison Company's ("Detroit Edison") response to the United States Environmental Protection Agency's ("EPA") Request to Provide Information Pursuant to the Clean Air Act ("Information Request"), dated May 28, 2010. The Information Request sent late on Friday afternoon prior to the Memorial Day Holiday weekend afforded Detroit Edison approximately one business day to provide its response. Due to this unreasonably short period of time for Detroit Edison to provide the requested information, and due to significant logistical issues in determining all of the potential additional information available to respond to the Information Request, Detroit Edison's reserves the right to amend or supplement this response.

Detroit Edison objects to the extent the Information Request is: (1) not related to whether Detroit Edison has been in compliance with applicable provisions of the federal Clean Air Act; (2) seeks information that is confidential and/or privileged; and/or (3) beyond the scope of EPA's legal authority. Further, by providing this response, Detroit Edison does not admit or acknowledge any noncompliance whatsoever with regard to the Clean Air Act, the Michigan State Implementation Plan or any other matter.

In the May 28, 2010 Information Request, EPA requested that Detroit Edison provide the date that it currently expects to complete the Monroe Power Plant's Unit 2 Outage. Detroit Edison expects that the current outage will be concluded on June, 9 2010. Detroit Edison also anticipates limited operation and testing of the unit prior to the conclusion of the outage.

EPA further requested information that Detroit Edison believes supports the contention that the work being performed does not require a permit. As set forth in DTE's March 12, 2010 planned outage notification letter to the permitting authority, the Michigan Department of Natural Resources and the Environment ("MDNRE"), this project does not require a permit because it is (1) routine maintenance, repair and replacement ("RMRR") under EPA's historic and Michigan's implementation of that term; and (2) the project would not result in a significant emissions increase.

With respect to RMRR, the project consists primarily of tube component replacements, similar to hundreds of such replacements in the industry and within DTE's system. As a matter of fact, Michigan Air Pollution Rule 285 (e) specifically exempts the tube and generator repair as examples of RMRR.

With respect to emissions increase, as discussed more fully below, Detroit Edison has thoroughly evaluated the project, as it has done for virtually every large outage over the last decade. Detroit Edison has carefully complied with the direction provided by the EPA on May 23, 2000 in response to the company's requested applicability determination on a project at the same plant at that time. We have consistently reported maintenance, repair and replacement projects to the MDNRE with baseline emissions and projected emissions, excluding "emission increases that are caused by other factors, for example, emission increases ... due to variability in control technology performance or coal characteristics," and, "that portion of its emissions attributable to increased use at the unit due to the growth in electrical demand for the utility system as a whole since the baseline period." MDNRE is intimately familiar with Detroit Edison's methodology for making these analyses, and it has never questioned any of Detroit Edison's submittals, including the one at issue here for the Monroe Unit 2 project. The applicable regulations call for a comparison of "projected actual emissions" and "baseline emissions" to determine whether a project would result in a significant emissions increase. To account for the statutory requirement of causation, the regulations require the Company to

> Exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that are also unrelated to the particular project, including any increased utilization due to product demand growth.

MAR 1801(ll)(ii)(C). In addition, the regulations require the Company to

> Consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the state or federal regulatory authorities, and compliance plans under the state implementation plan.

MAR 1801(ll)(ii)(A).

One fact that was clear to the MDNRE but that EPA may not have been aware of is that Monroe Units 1 and 2 share a stack. As a result, in the past, emissions from the two units have been prorated based on electrical generation. Beginning in 2013, we are projecting emissions separately, as Unit 1 will exhaust to a separate stack because it will be outfitted with a flue gas desulfurization (FGD) system and a new stack. As a result, the baseline year is actually based on the average emission rate between a unit controlled with SCR and one that is not controlled.

Detroit Edison recognizes that the regulations require essentially two steps in determining the "projected actual emissions" for the unit. First, the Company must project emissions for five years after the project, based on the Company's general methodologies for estimating future utilization and emissions, and accounting for all relevant information as of the date of the projection. Second, the Company must exclude increased emissions that (1) are unrelated to the project and (2) could have been accommodated in the baseline period.

Accordingly, in evaluating this project, Detroit Edison first used its then current system-wide projection, which it had already filed with the Michigan Public Service Commission. That projection used PROMOD, a production cost model widely used in the industry for short to medium range projections. The model used to make these projections did *not* include any changes to the characteristics of the unit based on the project, because the project is not expected to affect the performance characteristics of the unit as compared to its characteristics before the project. Thus, while the model projected increases in the unit's utilization and emissions as compared to the baseline, those increases are completely unrelated to the project. They are due to (then) expected increased demand on the unit as a result of myriad factors, including most notably an increase in demand for the system as a whole and an extended outage for Monroe Unit 1 in 2013 for the purpose of tying new environmental controls for that unit (a scrubber).

It should be noted that at the time of the March notification, a primary driver for a projected increase in generation (and commensurate projected

increase in emissions) from the Monroe Power Plant was an expected increase in power demand accompanied by an increase in energy cost by $5.85/MWh. This increase in power demand, and increased costs of power, led to an increase in power demanded from Monroe Unit 2. This increase in power demand led to the following other factors affecting emissions:

- Monroe 2 has no periodic outage scheduled for 2013, while it had outages planned in 2010, 2012 and 2014, three of the other years that were evaluated as part of the letter. Significant work (tie-in of a new FGD) is planned for Monroe Unit 1 and Monroe Unit 2 must help make up the difference in electricity demand. The plant does not generally schedule outages on more than one unit per year and will not overlap outages.
- An increase in demand from all the units in Detroit Edison's portfolio. For example, Monroe units were expected to increase generation from a projected 15,398 MW-hrs in 2010 to 19,172 MW-hrs in 2014, as reported in the PSCR report last fall. The entire fossil generation portfolio was expected to increase generation from a projected 44,595 MW-hrs in 2010 to 48,617 MW-hrs in 2014.
- Monroe can accommodate and has historically accommodated a wide range in fuel blends and this fuel variability is allowed under our permit as well as referenced in our Monroe Applicability Determination. Beginning in 2013, all the Monroe units will be blending significantly less low sulfur western coal, about a 3% drop in weight from 2012.

Notably, the scenario reflected in the PROMOD projections reported in the March notification is not the case any longer, as the cost of natural gas has dropped significantly. But this information was not available when the PSCR forecast was submitted last fall. If current information were used, it is unlikely that we would have even projected increased demand (and emissions) for this unit.

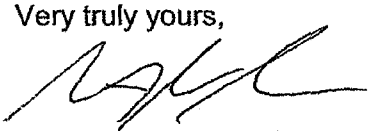
As noted earlier, an increase in utilization due to "demand growth" can be excluded from emissions increase estimates, as it was in Detroit Edison's analysis. Just as a note of interest, although the projections made in our March 12, 2010 notification were based on the latest official PROMOD run, it is now believed that emission projections will be less due to the continuing lower price of natural gas and the slower economic recovery of the area.

Detroit Edison also determined that the projected increases could have been accommodated in the baseline period. Specifically, the projected capacity factor for 2013 for Monroe Unit 2 is 82.5%. During the baseline period of May, 2005 through April, 2007, the equivalent availability factor of the unit was approximately 85.2%, and thus the unit could have accommodated the projected increase. As a result, Monroe Unit 2 could have generated the 5,478,000 MW-hrs

described in our letter, had the market required the electricity during our baseline period.

I trust that you will find this response to the Information Request satisfactory. If you have any questions regarding this submission, please contact the undersigned.

Very truly yours,



Michael J. Solo, Jr.

MJS/dmc
Enclosure
cc: William Presson , MDNRE
Mark Palermo, EPA Region 5
Ethan Chatfield, EPA Region 5
Skiles Boyd, Detroit Edison
William Brunell, Detroit Edison Counsel

Boyd Declaration Exhibit 4: June 23, 2010 Detroit Edison letter to EPA

DTE Energy Company
One Energy Plaza, Detroit, MI 48226-1279

DTE Energy

MICHAEL J. SOLO, JR.
Attorney
(313) 235-9512

FOR SETTLEMENT PURPOSES ONLY

Mark Palermo
Associate Regional Counsel
U.S. Environmental Protection Agency—Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: EPA's June 4, 2010 NOV

Dear Mr. Palermo:

Thank you for participating in the conference call with us on June 16, 2010 to discuss the allegations contained in EPA's June 4, 2010 Notice of Violation ("the NOV"). As was clear from our meeting, the parties sharply disagree as to whether recent work at Detroit Edison Company's ("Detroit Edison") Monroe Unit 2 constitutes a "major modification" under the New Source Review ("NSR") program of the Clean Air Act ("the CAA"). The Monroe plant is Detroit Edison's "flagship" facility; the units at that plant are being retrofitted with state-of-the-art pollution control equipment. In addition, Monroe Unit 2 is a relatively large unit (795 MW) and is therefore crucial to maintaining reserve margins and reliability, especially during the upcoming Summer months. Notwithstanding Detroit Edison's disagreement with EPA's conclusion regarding the project recently completed at Monroe Unit 2, Detroit Edison is pleased to discuss with EPA an offer to settle this NOV, as outlined below, and Detroit Edison continues to be interested in reaching a "global settlement" of EPA's NSR allegations regarding Detroit Edison's generating plants.

Before presenting its offer, Detroit Edison believes it necessary to restate its position regarding EPA's allegations and to address some of EPA's comments during the June 16 conference. As you know, Detroit Edison submitted a detailed planned outage notification on March 12, 2010 to the permitting authority, the Michigan Department of Natural Resources and the Environment ("MDNRE"). Even though the Monroe Unit 2 project was routine maintenance, repair and replacement under Michigan's NSR rules, Detroit Edison submitted to MDNRE an emissions increase analysis also demonstrating that the project would not result in a significant emissions increase. MDNRE is familiar with Detroit Edison's project notification policy; MDNRE did not question Detroit Edison's analysis or the project at the time it received Detroit Edison's notification; nor has MDNRE questioned the project since then. EPA, for its part, waited until the project was essentially complete to issue its June 4 NOV.

Contrary to EPA's contentions, the recent work performed at Monroe Unit 2, which involved mainly economizer and superheater replacements, is not materially different than work that is commonly performed throughout the utility industry. Indeed, a district court in this Circuit recently held as much when considering nearly identical projects. *See National Parks Conservation Ass'n et al. v. Tennessee Valley Authority*, Case No. 3:01-CV-71, 2010 WL 1291335 (E.D. Tenn. Mar. 31, 2010), at *26 ("The Court finds economizer replacements to be common in the industry."), 29 ("The Court finds superheater replacements to be common in the industry."). Moreover, EPA has yet to cite any evidence that Detroit Edison's work was non-routine. Rather, at the parties' conference, EPA simply pointed to projects performed long ago, and claimed that the Monroe Unit 2 work cannot be routine because it was larger and cost more than those projects. This is wrong. The Monroe Unit 2 project consisted of tube component replacements—the most common type of replacements in the utility industry. The scope of the project is similar to hundreds of similar projects undertaken in the utility industry for decades. Recognizing that this project was undertaken in 2010—not, say, 1988—the cost of the project is in line with similar tube component replacement projects throughout the utility industry. In short, the Monroe Unit 2 tube component replacements are no larger than many projects commonly performed throughout the industry. As the court in *National Parks* found, all four "*WEPCo* factors"—nature and extent, purpose, frequency, and cost—favored a finding that nearly identical projects *were* routine. *Id.* at *24-31. MDNRE was right not to dispute Detroit Edison's determination that this work was routine, and Detroit Edison respectfully submits that EPA is wrong to suggest otherwise.

EPA is also wrong to suggest that the Monroe Unit 2 work will result in a significant increase in emissions as a result of the projects. Before commencing this work, Detroit Edison undertook an emissions analysis pursuant to the applicable Michigan rules, reasonably determined the work would not result in a significant increase in emissions, and submitted this determination to MDNRE. While EPA may disagree with Detroit Edison's determination, it has yet to explain why. Indeed, as Detroit Edison has explained, the analysis Detroit Edison submitted is similar to the project analyses it has been submitting to MDNRE for the past decade under the company's notification policy. These analyses, which apply the WEPCo Rule, the guidance provided to the Company by EPA in May 2000 regarding the Monroe turbine project, and the MDNRE's NSR rules, have been discussed with MDNRE. And EPA has been aware of these analyses and Detroit Edison's notification policy for some time, both from Detroit Edison's response to EPA's multiple Section 114 requests and, presumably, its oversight of Michigan's permitting program. Indeed, Detroit Edison raised its notification policy with EPA almost a year ago—at the September 25, 2009, conference following the July 24, 2009 NOV—and Detroit Edison specifically asked EPA to inform it if EPA disagrees with the way the company analyzes projects. Instead

of responding, EPA sat by for almost a year and issued an NOV after the Monroe Unit 2 project was complete.

The attached chart further illustrates and confirms the conclusion of the Company's notification to MDNRE prior to the project, i.e., that there will be no significant increase in emissions due to the project. The chart provides the results of Detroit Edison's 2009 PROMOD runs in comparison to the 2005-2007 baseline period, and confirms that emissions and utilization projections are the product of independent factors such as demand and fuel prices, not tube replacements. DTE would be happy to meet with you to discuss all of our emission projections, to explain any questions you may have about how we make these projections under the guidance we have received from MDNRE, and to provide any further analyses as needed.

In addition, during the June 16 conference, proceeding on the assumption that the recent work at Monroe Unit 2 was a "major modification," EPA contended that any settlement of this NOV would have to include "mitigation" of "excess emissions" from the unit. Based on a follow-up e-mail from Apple Chapman dated June 17, 2010, EPA apparently measures "excess emissions" by the difference between annual emissions assuming heat input (utilization) during 2009 and current emission rates and what annual emissions supposedly would be in the future had Detroit Edison installed a scrubber and an SCR that would achieve emissions rates of 0.021 lb/mmBtu SO2 and 0.069 lb/mmBtu NOx, respectively. Both of EPA's premises are wrong. The emissions rates that EPA posits are short-term measures that are not demonstrated nor achievable in the long-term. Moreover, review of recent PSD permits, very few of which involve existing boilers, does not show emission rates of 0.021 lb/mmBTU SO2 nor 0.069 lb/mmBTU NOx.

As to the major premise of EPA's "excess emissions" calculation, even assuming the Monroe Unit 2 project could have triggered NSR, the proper measure of "excess emissions" is, at most, the amount of actual annual emissions following the project that exceed the baseline emissions, not some theoretical calculation based on nonexistent conditions. If the actual emissions of the unit do not exceed baseline levels, the project cannot possibly cause "excess emissions." This conclusion flows inexorably from the regulatory definition of "major modification" and is supported by practical reality. From a legal perspective, a "major modification" is a physical or operational change that *causes* a significant emissions increase. *See* Mich. Admin. Code. R. 336.2801. Therefore, on their face, the regulations define "excess emissions" by reference to baseline emissions, not some hypothetical unit that would have installed a scrubber and an SCR. As a practical matter, had Detroit Edison determined that the Monroe Unit 2 project could be a major modification, Detroit Edison would have avoided NSR altogether by taking a permit limit to ensure that annual-post project emissions do not exceed baseline emissions by more than the

significance threshold. Indeed, no rational company would obtain an NSR permit that would require the installation of a scrubber and an SCR for an economizer/superheater project unless the utility was going to install these controls during the same outage for other reasons. Accordingly, the "excess emissions" (if any) are, at most, the difference between annual post-project emissions and baseline emissions.

Furthermore, an increase in actual, annual emissions cannot possibly occur until after at least one year of post-project operations, and given the current state of the economy in Michigan and other changes in forecast conditions since last year, Detroit Edison currently projects that utilization of Monroe Unit 2 during the course of the coming year will not exceed baseline for any reason, including independent factors such as demand. This further confirms that the Monroe Unit 2 projects are not modifications, and that there will be no adverse impact on the environment while settlement negotiations continue.

Notwithstanding the foregoing, Detroit Edison continues to be interested in a global settlement of EPA's NSR allegations for Detroit Edison's entire system, and also an early resolution of EPA's June 4, 2010 NOV if EPA's believes it important to address the latter in the interim. Thus, with the understanding that any controls and other requirements that the parties agree upon to resolve the June 4 NOV would be accounted for and eventually "credited" and incorporated into any global settlement between Detroit Edison and the government, Detroit Edison proposes the following framework for settling the June 4 NOV: Detroit Edison will install and operate a flue gas desulfurization unit (scrubber) on Monroe Unit 2 by December 31, 2014, and will proceed with plans to install and operate a selective catalytic reduction (SCR) unit on Monroe Unit 2 by the same date, although additional steps must be taken within Detroit Edison including potential permitting activity before installing and operating the SCR can be included in a formal commitment. Further, as a symbol of good faith and to alleviate any concern regarding any potential "real" emission increases from Monroe Unit 2, barring unforeseen circumstances, while pre-enforcement settlement discussions are voluntarily occurring, Detroit Edison will manage the operation of the unit to assure there is no increase in annual emissions above baseline levels for *any* reason whatsoever, including independent factors.

In conclusion, DTE believes that it would be most fruitful for the government and the company to negotiate a global settlement of EPA's NSR and other CAA allegations for Detroit Edison's entire system. There is no reason to single out the Monroe Unit 2 project, which is no different than hundreds of projects undertaken throughout the industry and at DTE, where DTE did what it is supposed to do in terms of analyzing the project for potential NSR applicability and submitting a pre-project notification to the permitting authority, and especially where there is no possible alleged harm that can result from these projects. Indeed, by managing the operations of the unit while good faith negotiations are

proceeding, as described above, DTE will ensure that is the case. Nonetheless, Detroit Edison is willing to enter into an interim settlement of the June 4 NOV, as outlined above.

Very truly yours,

Michael J. Solo, Jr.

MJS/dmc
Enclosure
cc: William Presson , MDNRE
Ethan Chatfield, EPA Region 5
Skiles Boyd, Detroit Edison
William Brownell, Detroit Edison Counsel

FOR SETTLEMENT PURPOSES ONLY

The Detroit Edison Company, Monroe Power Plant

		NOx	SO2	PM	EAF	CF
2009 PSCR PROMOD Submittal	2010	6646	28153	NA		64.4
	2011	5752	27384	NA		62.7
	2012	6700	29401	NA		67.3
	2013	6494	26653	NA		65.8
	2014	6168	1635	NA		65.2
May, 2005 to April, 2007		9097	28989	482	85.5	72.2

PROMOD Run in 2009 did not include PM emissions, they were calculated by EM&R using heat inputs and previous years PM emission rate.

EXHIBIT 3
TO DEFENDANTS' BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS:

Letter from Kelly L. Guertin (DTE Energy) to William Presson (MDEQ) (Mar. 12, 2010)

DTE Energy Company
One Energy Plaza, Detroit, MI 48226-1221

DTE Energy

VIA CERTIFIED MAIL

March 12, 2010

Mr. William Presson, Acting Section Supervisor
Permit Section
Air Quality Division
Michigan Department of Environmental Quality
525 W. Allegan
Constitution Hall - 3rd Floor North Tower
P.O. Box 30260
Lansing, MI 48933

Re: **2010 Planned Outage Notification - Monroe Power Plant (B2816), Unit 2**

Dear Mr. Presson:

DTE Energy periodically removes its generating units from service for up to three months to perform maintenance, repair, and replacement activities that cannot otherwise be done with the unit in operation. Typically, this occurs on a 2-3 year cycle. Occasionally a unit is taken out of service for a planned shorter duration to perform less extensive work. During the upcoming twelve (12) week outage at the Monroe Power Plant on Unit 2 that begins on or about March 13, 2010, the following major projects are being undertaken: (1) boiler system repairs and replacements; (2) turbine repairs and replacement; (3) electrical repairs and replacement; and (4) draft system repairs and replacement. These project are exempt under Michigan air rules and no permitting activity is required (see Attachment A). In the electric utility industry, these projects represent routine maintenance, repair and replacement activities.

We are providing notice that these projects are taking place based on the recently promulgated Michigan Prevention of Significant Deterioration (PSD) rules [R336.2801-2830] that became effective on December 4, 2006. Prior planned outage notifications were submitted under the federal New Source Review (NSR) rules promulgated on December 31, 2002 and that became effective in Michigan on March 3, 2003 (the 2002 rules). The 2002 rules required notification, additional record keeping, and annual reporting whenever *"there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase...."* For the reasons discussed below, DTE Energy continues to believe there is no reasonable possibility that the proposed project will result in a significant emissions increase and thus, the requirements do not apply. However, until USEPA and/or the federal courts provide a clear definition of what constitutes routine maintenance, repair and replacement, DTE Energy will follow the requirements of Michigan Air Rule 1818(3). Accordingly, this outage notification for Monroe Unit 2, and all subsequent outage notifications submitted by DTE Energy will continue to follow the format of prior notifications, even though there is no expected increase in emissions as a result of the planned projects. We continue to believe this notice is not required by federal or state regulations.

The NSR applicability test requires a comparison of past actual and projected emissions. *"Baseline actual emissions"* are defined in Michigan Air Rule (MAR) 1801(b). The baseline period for defining past emissions for Monroe Unit 2 was originally established for the 12 week outage in February 2005 to be the two-year period in calendar years 2000-2001. That baseline is being replaced for this periodic outage. The new baseline is May 2005-April 2007. Net generation and capacity factor data for the new period were obtained from the DTE Energy Power Plant Performance Management (P3M) system records. Particulate emissions were based on fuel characteristics and EPA emission factors. Heat input, sulfur dioxide, and nitrogen oxide emissions were obtained from continuous emission monitoring system (CEMS) data presented in the EPA Annual Acid Rain Scorecard reports. Baseline emissions and other operating characteristics are shown in Table 1.

"Projected actual emissions," as defined in MAR 1801(ll), are also shown in Table 1, along with a comparison of projected and baseline actual emissions. This comparison shows that the projects will not result in an emissions increase. The projected actual emissions in Table 1 were calculated as follows: First, PROMOD projections (production cost model output) were calculated based on the unit's expected post-outage maximum annual utilization during the period 2010-2014 with fuel characteristics similar to the baseline period. The expected post-outage maximum annual utilization (estimated to occur in 2013) was obtained from the PROMOD analysis contained in the 2010 PSCR Annual Report issued on September 10, 2009 as required by the Michigan Public Service Commission. As required under the new rules we then excluded from the PROMOD projections *"...that portion of the unit's emissions following the project that an existing unit could have accommodated ... and that are also unrelated to the particular project," including increases due to demand and market conditions or fuel quality per MAR 1801(ll)(ii)(C).* (See Table 1)

It should be pointed out that emissions and operations fluctuate year-to-year due to market conditions and in any individual year could very well exceed baseline levels. Obviously, since the baseline represents a 2-year average, one of those years was above the baseline and one below. At some point in the future, baseline levels may be exceeded again, but not as a result of this outage. Future unit utilization is also a function of expected electricity market conditions. Many factors influence market demand – weather, availability of other units, transmission limitations, electrical system security, etc. Moreover, fuel quality could change. As mentioned above, the Michigan air rules direct one to exclude from projected actual emissions "...that portion of the unit's emissions following the project that an existing unit could have accommodated ... and that are also unrelated to the particular project," including increases due to demand growth or fuel quality changes per MAR 1801(ll)(ii)(C).

Additionally, Part 18 of the Michigan Air Rules allows an existing utility steam generating unit to use a different baseline period for each pollutant under the definition of "Baseline Actual Emissions" in R336.2801(b)(i)(C) as follows:

> *"(C) For a regulated new source review pollutant, if a project involves multiple emissions units, then only 1 consecutive 24-month period shall be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period may be used for each regulated new source review pollutant." [Emphasis added]*

Accordingly, a pollutant-specific baseline for sulfur dioxide ("SO_2") was chosen as July 2006-June 2008. The pollutant-specific baseline for nitrogen oxides ("NO_X") was chosen to be October 2006-September 2008. The pollutant-specific baseline for particulate matter (PM) was chosen to be January 2008-December 2009.

All of the replacement components are identical or functionally equivalent to the equipment now in service, and they do not change the basic design parameters of Monroe Unit 2, which will continue to meet enforceable emission and operational limitations. Moreover, the Utility Air Regulatory Group (UARG), an organization of which DTE Energy is a member, has submitted to the EPA NSR Docket during prior comment periods a list of repair and replacement activities that utilities must perform to keep electric generating facilities operational.[1] These activities are considered routine in the electric utility industry. Furthermore, MAR 1801(aa)(iii)(A) specifies that routine maintenance, repair and replacement activities are not major modifications. Therefore, Part 18 requirements do not apply to these projects.

If you have questions on this notice, please contact me at (313) 235-4698 or via email at gossiauxk@dteenergy.com or you may contact Mr. Wayne Rugenstein at (313) 235-7023 or via email at ***rugensteinw@dteenergy.com***.

Regards,

Wayne A. Rugenstein for

Kelly L. Guertin
Staff Environmental Engineer
Environmental Management & Resources

Attachments

FILE: MONPP U2 Planned Outage 2010 - NSR Notification.docx

Cc: C. E. Jennings
R. C. Larlham
Scott Miller – AQD Jackson
F. D. Warren

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[1] DTE has previously provided to your office a copy of the UARG document as part of the Monroe Unit 1 Planned Maintenance Outage Notification dated January 21, 2004.

ATTACHMENT A

Monroe Power Plant Unit 2 Outage Summary

The following activities will be performed during the outage scheduled to begin on or about March 13, 2010, and are exempt under the Michigan Air Pollution Rules as outlined below:

- **Boiler System Repairs and Replacements** – Replacement of economizer tubes; replacement of reheat pendants; replacement of a section of water wall tubes and burner cells; and boiler tube chemical cleaning with the replacement of 210 valves. These activities are exempt under MAR 285(a).
- **Turbine System Repairs and Replacements** – Rewind MTG rotor; install static exciter; replacement of generator lead box; overhaul of north boiler feed pump turbine & rebuild south boiler feed pump; and install boiler feed pump TSI. These activities are exempt under MAR 285(a).
- **Electrical System Repairs and Replacements** – Replace system service transformer #62; replace 4160V cables from system service transformers; rebuild 9-4160V circuit breakers. These activities are exempt under MAR 285(a).
- **Draft & Fuel Burning Repairs and Replacements** – Replace ten air heater gas side expansion joint. This activity is exempt under MAR 285(a).

Table 1
Monroe Power Plant - Unit 2
Comparison of Actual and Projected Actual Emissions & Operations

Period	Baseline Actual per MAR 1801(b)[1][2]	Pollutant - Specific Baseline Actual Emissions for NO_X per MAR 1801(b)[1][2]	Pollutant - Specific Baseline Actual Emissions for SO_2 per MAR 1801(b)[1][2]	Pollutant - Specific Baseline Actual Emissions for PM per MAR 1801(b)[1][2]	PROMOD Projection per MAR 1802(ll)(ii)(A)[3]	Emissions Excluded per MAR 1802(ll)(ii)(A)[3]	Projected Actual Emissions per MAR 1802(ll)(ii)	Emission Change
	May 2005-April 2007	October 2006-September 2008	July 2006-June 2008	January 2008-December 2009	January 2013-December 2013			
Unit Electrical Capacity, MW	795	795	795	795	795			
Net Generation, MWh	4,983,296				5,748,000			
Annual Capacity Factor	85.5%				82.5%			
Heat Input, mmBtu	47,335,146	44,343,031	45,802,027	43,742,775	54,974,000			
SO2, lb/mmBtu			1.32		1.23			
NOx, lb/mmBtu		0.47			0.53			
PM, lb/mmBtu				0.02	0.02			
SO2, tons			30,115		33,816	3,701	30,115	0
NOx, tons		10,398			14,494	4,096	10,398	0
PM, tons				498	615	117	498	0

Notes:
(1) Michigan Air Rule (MAR)
(2) Baseline values are a 12-month average of a selected 24-month consecutive operating period
(3) PROMOD projections are based on the maximum utilization for the period 2010-2014 as shown in the DTE Energy - Detroit Edison Power Supply Cost Recovery (PSCR) 2010 Annual Report (dated 9-10-09) as required by the Michigan Public Service Commission

FILE: Monroe 2 Notification Data - Table 1.xls
TAB: MONPP U2 NSR Notice 3-2010

EXHIBIT 4
TO DEFENDANTS' BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS:

Supplemental Declaration of Skiles W. Boyd (May 20, 2013)

UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, And NATURAL RESOURCES DEFENSE COUNCIL, INC. AND SIERRA CLUB, Intervenor-Plaintiffs, v. DTE ENERGY COMPANY AND DETROIT EDISON COMPANY, Defendants.	Civil Action No. 2:10-cv-13101-BAF-RSW Judge Bernard A. Friedman Magistrate Judge R. Steven Whalen

SUPPLEMENTAL DECLARATION OF SKILES W. BOYD

I, Skiles W. Boyd, state that the following facts are true to the best of my knowledge, information, and belief:

1. Since 1978, I have been employed by DTE Electric Company ("DTE"), a wholly owned subsidiary of DTE Energy Company. DTE is an energy company headquartered in Detroit, and has provided electricity to customers throughout Michigan since the early 1900s. Over the past several years, I have been generally responsible for managing the Environmental Management and Resources Organization for DTE's enterprise, including all of the environmental issues related to Monroe Unit 2, a coal-fired generating unit located at DTE's Monroe plant in Monroe, Michigan. My current position is Vice President of Environmental Management and Resources.

2. In connection with my job responsibilities, I have personal knowledge respecting the steps DTE takes to ensure that construction projects at its coal-fired power plants are

evaluated before construction to determine whether those projects would trigger New Source Review (NSR) permitting requirements. I also have personal knowledge concerning the steps the company took pursuant to 40 C.F.R. § 52.21(a)(2)(iv)(*c*) to determine whether the projects undertaken at Monroe Unit 2 in 2010 would cause a significant increase in emissions.

3. The steps taken by DTE to determine whether any of the 2010 Monroe Unit 2 projects would cause an increase in emissions are described in the pre-outage notification the company sent to Michigan Department of Natural Resources and the Environment (MDNRE) before commencing construction.

4. To determine "baseline actual emissions" as required by 40 C.F.R. § 52.21(b)(48),

a. DTE identified a consecutive 24-month baseline period for each pollutant within the five years immediately preceding the project, and calculated for each pollutant the average annual emissions and the average emissions rate. Those determinations are summarized as follows:

Pollutant	24-month period	Avg. Annual Emissions (tons)	Avg. Emissions Rate (lb/mmBtu)
NOx	October 2006 - September 2008	10,398	0.47
SO_2	July 2006 – June 2008	30,115	1.32
PM	January 2008 – December 2009	498	0.02

b. For each of these periods, DTE verified that it had adequate emissions data. *See* 40 C.F.R. § 52.21(b)(48)(i)(*d*). Since before 2005, Monroe Unit 2 has been equipped with a continuous emissions monitoring system (CEMS) that records all emissions of NOx and SO_2, and other data used to calculate PM emissions, from Monroe Unit 2. That system was functioning throughout each of these 24-month periods.

c. DTE confirmed that emissions associated with startup, shutdown and malfunction (SSM) were included in the emissions calculations. *See id.* §

52.21(b)(48)(i)(*a*). The CEMS for Monroe Unit 2 records all emissions from the Monroe Unit 2 stack, including emissions from SSM events.

d. DTE concluded that fugitive emissions from Monroe Unit 2 during the baseline period were not quantifiable and thus did not need to be included in baseline actual emissions. *See id.* To my knowledge, this is consistent with industry practice, and I am not aware of any instance in which EPA found otherwise for a utility unit project, including in this case.

e. DTE determined that no emissions during any of the 24-month periods were in excess of any legally enforceable emission limitation. *Id.* § 52.21(b)(48)(i)(*b*).

5. To determine "projected actual emissions" as required by 40 C.F.R. § 52.21(b)(41)(ii), the company relied primarily on the company's projections that had been submitted to Michigan Public Service Commission (MPSC) as part of the company's 2010 Power Supply Cost Recovery (PSCR) filing. These projections were made using a complex "production cost model" called PROMOD, that relies on a number of company-defined inputs to predict how much Monroe Unit 2 was estimated to be utilized from 2010 through 2014. As part of this analysis:

a. DTE projected that Monroe Unit 2 in the five years after the project would experience its maximum emissions of NOx and SO_2 in 2013.

b. DTE considered all relevant information when developing inputs to be used by PROMOD, *see* 40 C.F.R. § 52.21(b)(41)(i), including hourly load forecast, projected fuel dispatch prices, SO_2 and NOx allowance prices, plant heat rates, plant capabilities and derates, plant SO_2 and NOx rates, projected equivalent availability factor (EAF) based on expected random outage rates and scheduled maintenance, plant derates associated with automatic generation control (AGC), fuel blending options, projections of

market prices for coal and natural gas, the impact of bilateral agreements with other electricity generators for the purchase and sale of electricity, and the impact of the company's initiatives with respect to renewable energy.

c. DTE accounted for SSM emissions by calculating projected average emission rates based on total emissions reported in CEMS before the projects, including the baseline periods, which would include the impacts of start-up, shutdown and malfunction on average emission rates. *Id.* § 52.21(b)(41)(ii)(*b*). To my knowledge, this is consistent with industry practice, and I am not aware in any instance in which EPA found otherwise or suggested the use of a different methodology for an NSR analysis for a utility unit project, including in this case.

d. DTE determined that fugitive emissions were not quantifiable and that, in any event, because 2010 projects would not impact fugitive emissions, those emissions would be equivalent to fugitive emissions during the baseline period.

e. DTE excluded "that portion of the unit's emissions following the project" that Monroe Unit 2 "could have accommodated" during the baseline period. The company specifically determined that any increase in emissions of NOx, SO_2 and PM were attributable to demand growth, based on the company's prediction that there would be substantial demand for electricity generated at DTE's coal-fired power plants in 2013, due to the predicted price of coal versus the price of natural gas and other factors affecting demand. The company then concluded that these emissions could have been accommodated during the baseline period, because the unit had greater availability during the baseline period than the highest expected utilization of the unit after the project.

6. After calculating baseline actual emissions and projected actual emissions as instructed by the rules, DTE then compared the two figures and determined that no significant

increase in emissions, as defined by 40 C.F.R. § 52.21(b)(23), was expected to occur as a result of the projects.

7. During the course of calendar years 2011 and 2012, for Monroe Unit 2, Detroit Edison has monitored and recorded emissions of NOx, SO_2 and PM and has recorded data concerning Capacity Factor (CF). For Monroe Unit 2, the following table summarizes emissions data for 2011 in comparison to relevant NSR baselines:

2011	**Actual**	**Baseline**
CF, %	61.5	72.1
NOx, Tons	6,494.1	10,398
SO_2, Tons	23,678	30,115
PM, Tons	411	498

The following table summarizes emissions data for 2012 for Monroe Unit 2 in comparison to relevant NSR baselines:

2012	**Actual**	**Baseline**
CF, %	51	72.1
NOx, Tons	5,394	10,398
SO_2, Tons	22,865	30,115
PM, Tons	308	498

* * *

I declare under penalty of perjury that the foregoing is true and correct.

Dated: 5/20/13

Skiles W. Boyd

Skiles W. Boyd

EXHIBIT 5
TO DEFENDANTS' BRIEF IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT BASED ON COMPLIANCE WITH PRE-CONSTRUCTION PROJECTION REQUIREMENTS:

Transcript of Gordon P. Usitalo 30(b)(6) Deposition (June 9, 2011) (excerpts)

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA,	:	
Plaintiff,	:	
and	:	
NATURAL RESOURCES DEFENSE	:	
COUNCIL, INC. AND SIERRA	:	Civil Action No.
CLUB,	:	2:10-cv-13101-BAF
Intervenor-Plaintiffs,	:	-RSW
v.	:	
DTE ENERGY COMPANY AND	:	
DETROIT EDISON COMPANY,	:	
Defendants.	:	

Washington, D.C.

Thursday, June 9, 2011

Deposition of GORDON P. USITALO, a witness herein, called for examination by counsel for Plaintiff in the above-entitled matter, pursuant to notice, the witness being duly sworn by MARY GRACE CASTLEBERRY, a Notary Public in and for the District

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30(b)(6), that explains how DTE does its forward pricing?

A. Yes.

Q. Is one of those documents an April 15th, 2011, 3:10 p.m. from Michael Hoffman to you, subject line, fuel forecasting?

A. Yes.

Q. And then did Mr. Hoffman attach his direct testimony in some proceedings to that? And it looks like it has a number MGH-4 through MGH-6?

A. Yes.

Q. Can you go ahead and explain first the e-mail that Mr. Hoffman sent you on fuel forecasting, the part about coal it has in the second paragraph?

A. Yes. I called Mike and asked him for the process for purposes of this deposition, and he explained it briefly to me and forwarded me this e-mail. I don't remember if it was strictly e-mail back and forth or if I actually talked to him.

So it says forecasted coal prices are based on forward spot prices as published by an OT -- I believe that's a typo -- an OTC coal broker, which

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he doesn't identify. He uses transportation, both rail rates and looking at the number 2 oil forecasts. They'll put a surcharge on that to take into account anticipated transportation uplift or downward movement. And also similarly for any vessel rates for the costs of delivering the coal to our facilities.

Q. So the forward price for coal in PROMOD is based on the forward spot price, the rail rate to transport the coal plus any fuel adjustment that the rail company hits you guys with, to get the coal to your plants?

A. Yes. And they're using a forward price for that fuel adjustment, as the basis for that fuel adjustment.

Q. Let me see if I gotcha. So for PROMOD, if you have a coal price for 2012, you would look at what the coal broker said coal would cost there for a forward contract plus the forward contract for rail and oil to fuel the train?

A. I'm not sure it's a contract for oil. They're using a published market price. I don't know

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the exact algorithm that fuel supply uses to give us the price. We get the delivered price for the input.

Q. And the input for coal price, however the variables are calculated, includes the spot price of the coal, a rail cost plus a railroad fuel surcharge cost, is that fair?

A. Correct.

Q. Was there, besides this e-mail, an attachment? You know, were there other conversations you had with Mr. Hoffman about how DTE does coal price projections for PROMOD?

A. Yes. So their forward prices only go out for a certain period of time and then if we do a longer model, then we have to project that out and we'll use our market intelligence group or risk management group to give us a feel of what we should use for those out years.

Q. How far out into the future do these forward prices go before you have to start doing the --

A. I believe it's five years.

Q. You've mentioned a couple of times PSCR

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and why don't you go ahead and state for the record what that means, that acronym means.

A. Power supply cost recovery.

Q. What is that?

A. It's a provision in our -- being a regulated utility, that allows us to recover costs to serve our customers above or below, or reimburse the customers if our forecasts come in above or below what we project.

Q. Do you get paid upfront by your customers based on your projection in the PSCR?

A. There is a PSCR adjustment factor that's calculated after the fact as an adjustment to the bills of our customers.

Q. So you go into the Michigan Public Service Commission, the Commission approves your PSCR. Do people's electric bills in their mailboxes immediately have a surcharge on them after that approval, or is there some time where it takes to get worked in?

MR. SIBLEY: Object to the form of the question. It's compound. You can answer if you

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understand.
THE WITNESS: So you're doing this PSCR reconciliation every year. So that's a moving adjustment based on -- I'm not in the regulatory arena so I don't know the exact mechanism for doing it. What we do is, you know, do the forecast and then regulatory takes it and applies those in the proper regulatory arena.
BY MR. SAVAGE:
Q. What is a PSCR reconciliation?
A. Well, that's where you go after the fact and you look at all the variables, since PROMOD is not a perfect model, that could have changed from what you forecast, and you explain why your price was either lower or higher than forecast, and then that's what's used to adjust that PSCR factor on the customer's bills.
Q. Can you help me here with the timing? You get a PSCR approved. How soon after that does the reconciliation occur? Let's say for the 2010 PSCR.
A. For the 2010 PSCR, we look at the year 2010 and the Commission looks at that as the costs to

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serve our customers. After the fact, after 2010 is over, we go back and recalculate what the real costs to serve our customers were. If they believe that we acted prudently, they'll approve the PSCR adjustment.
Q. So if the projection was on the high side, then a customer might get a cents per kilowatt rebate or some kind of rebate, is that right?
A. Right.
Q. And if the projection in your PSCR was too low, then you might ask the Public Service Commission to give an additional surcharge to cover your increased costs?
A. Correct.
Q. Does Detroit Edison make a good faith effort to provide as accurate a PSCR PROMOD projection as they can to the Public Service Commission in Michigan every year, at the time that it's done?
MR. SIBLEY: Object as ambiguous. You can answer if you understand.
THE WITNESS: Yes.
BY MR. SAVAGE:

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Q. Who within Detroit Edison is responsible for I guess going up to Lansing every year and explaining to the Commission why exactly you want to recover a certain amount through the PSCR process?
A. It's Angela Wojtowicz.
Q. We're going to need a spelling.
A. I don't have the correct spelling. W-o-j-t-c-i-e-w-i-c-z, I believe.
MR. SIBLEY: I got the W, the J and the C, which is all I can remember.
BY MR. SAVAGE:
Q. What's his job title? And I hope it's not a really long one.
A. It's her, Angela.
Q. Oh, yeah.
A. I don't know her exact title. She's manager -- I don't know her exact title. She's a manager in Generation Optimization.
Q. You mentioned that you also spoke to someone named Abdul Rasul to prepare for your deposition as the company representative today. Who is he?

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A. He's an engineer in Generation Optimization.
Q. First of all, what's Generation Optimization?
A. Generation Optimization is a group in our marketing department that used to be a part of Fossil Generation that performs our interactions with the MISO market. It looks to optimize how our assets -- to optimize the value of our assets in the marketplace.
Q. How does Detroit Edison optimize the value of its assets in the MISO marketplace?
A. Well, there are various ways to do that. We look at the market and the flexibility of our units, how they're able to operate in different modes and look at which one might be the best for the anticipated market. We look at outage timing, you know, try to schedule our outages in low market times.
We look at the value we get from ancillary services versus generation, adjust our generation offers based on that. So there is a lot of -- a